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General Plan

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General Plan


PREPARED FOR
The City of Palm Desert

PREPARED BY
DEPARTMENT OF ENVIRONMENTAL SERVICES

October, 1980

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I

SUMMARIES

SUMMARY OF GENERAL PLAN UPDATE

Following is a summary of the contents of the Draft General Plan Update. The purpose of this summary is to provide citizens the opportunity to review and comment on the recommendations prior to public hearings.

INTRODUCTION

This section describes the purpose of a General Plan and the process involved in developing it. In addition it describes The City in the context of its surrounding physical, social, and economic environment.

LAND USE

This element describes the existing and proposed land uses of the City and surrounding areas, and shows how they relate to one another.

In conclusion, this element proposes future land use which incorporates low density development to ensure against urban sprawl, and a consolidation of support facilities (commercial, industrial, public, etc.) into respective areas to ensure that they provide convenient and complementary service where they are most needed and best suited. This element recommends that a specific plan be completed for the north sphere area, which will be annexed into the City in the future. The specific plan will deal with the environmental and other problems prior to development on a large scale.

TRANSPORTATION/CIRCULATION

This element describes the need for an effective transportation system to serve local and regional access now and in the future. It further describes various issues (i.e., access, energy) and the various modes of transportation (i.e., pedestrian, autos, bicycle) which must be taken into consideration in order to have a full array of service and means of access available.

This element proposes a roadway and pathway system which provides for automobile, pedestrian, bicycle, golf cart and public transportation (bus) access and circulation throughout the City and surrounding areas. Although only the main roadways are shown on the proposed Circulation Map, detailed planning on the local level is required to complete the system in a manner which will make it effective.

URBAN DESIGN/SCENIC HIGHWAY

This element describes the importance of establishing the identity and character of the City, which in turn, will help to create a greater sense of appreciation and pride in the community.

In conclusion, this element proposes that various features such as landmarks, focal points, scenic highway, landscaping and architecture should be utilized to establish an urban design character for the City as a whole and for the respective community neighborhoods. The element also recommends the creation of an Urban Design Manual to provide illustrations of good design principles to assist the City in evaluating projects on a design basis.

PUBLIC FACILITIES

discusses the present and future capacities of public facilities, police and fire protection, etc.) in Palm Desert.

proposes that all of the various factors affecting the provision of public facilities and/or services in the City be taken into account. It further calls for standards and regulations to be reviewed as necessary, revised to guarantee that any adverse effects created by changes are minimized.

HOUSING

element describes some basic housing data (such as, price range of units), trends, and establishes present and projected needs.

element proposes that a broad range of reasonably priced but quality housing types be provided because it is both required and desired in meeting State and Federal Law and the best interests of the community. The element recommends the creation of a higher density overlay zone and facilitate a variety of housing types (single family, apartments, townhouses, etc.) by providing flexible design standards, assisting application/planning procedure and providing other incentives to produce that residents can afford. The element establishes standards for conversions of apartment units. The conversion will be granted if all of its meet established building and safety and zoning codes, and all existing regulations; if there is a sufficient number of rental units available to provide displaced tenants with adequate housing in similar rent range; and upon review, the City determines that the proposed conversion will not have adverse impacts on the economic, social, environmental and aesthetic qualities of the community.

POPULATION/ECONOMICS

In summary, this element provides basic data about the community which describes current population, business, and economic base. This data, along with other information, helps to provide for a better understanding of the community, along with a projection of future trends which must be taken into consideration if effectiveness is to result.

In conclusion, this element establishes facts and projections which confirm that the City has and will continue to experience significant growth, and should plan accordingly. All the various factors which affect growth should be carefully monitored and those factors which most influence future development and expansion should be carefully directed through proper planning and fiscal management.

SAFETY/NOISE/SEISMIC SAFETY

These elements deal with such factors as blow sand, flood control, earthquakes, public safety, drainage and noise. These elements propose that all of the various factors affecting the environmental and social quality of the community, be taken into consideration, and that standards and regulations be reviewed and, if necessary,

I-A

GENERAL PLAN

I - B

**ENVIRONMENTAL
IMPACT REPORT**

GENERAL PLAN

	Existing Conditions	Potential Impacts	Mitigation Measures
1-6-1 Geology & Soils	<p>Generally, the leveler portions of the community are located on recent (Holocene) alluvium derived from the Santa Rosa Mountains with Dead Indian Creek being the primary contributor. The Santa Rosa Mountains to the south and west of the City consist of hard bedrock of igneous and metamorphic types.</p> <p>Soil types are generally Caritas sand and Myoma fine sand.</p> <p>Reference the Seismic Safety Element of the General Plan Update.</p>	<p>The primary geological hazard that the City could experience would be ground shaking as the result of major earthquakes on the Mission Creek branch of the San Andreas Fault or the San Jacinto Fault.</p> <p>The amount of groundshaking an area or structure can be expected to receive is a result of 1) distance from the source and 2) geographic differentiation of soil and bedrock conditions.</p> <p>It is unlikely that surface rupture, tsunami, seiches, settlement nor liquefaction will present a problem.</p> <p>Potential landslides in hillside areas may necessitate further investigation.</p>	<p>Conformance with adopted building codes.</p> <p>Development in hillside areas with probable instabilities should be accompanied by a geotechnical investigation addressing soil, groundwater, geologic and seismic conditions.</p>
	<p>Topography</p> <p>The planning area, which covers 34,800 acres, can be divided into three natural physical areas. These areas are: the Northern Valley Floor, the Central Valley Floor and the San Jacinto Mountains.</p>	<p>Urbanization of the area will effect the topography and visual character of the general area. This should be minimized by the objectives contained in the General Plan. Additionally, the majority of the urbanization is concentrated in the leveler central and northern Valley Floor instead of the hillside</p>	<p>Implementation of the goals and objectives of the General Plan.</p>

Executive Summary (Continued)

	Existing Conditions	Potential Impacts	Mitigation Measures
Topography (Cont)	Reference the Conservation/ Open Space/Recreation Element and the Urban Design/Scenic Highway Element on the General Plan Update.	area. The greater percentage of the San Jacinto Mountains area is planned to remain in its natural state.	
Flood Control	<p>The planning area is protected by a system of dikes and chan- nels maintained by the Coach- ella Valley Water District.</p> <p>The North Sphere of Influence does not have major facili- ties, drainage following natural flows until they pene- trate the soil and/or White- water River/Coachella Valley Stormwater Channel.</p> <p>Past intense thunderstorms and tropical storms have subjected the planning area to flash flooding.</p> <p>Reference City's Master Plans of Drainage.</p>	<p>Without new and/or improved facilities both on a regional basis and local level, new and existing development will be subjected to flooding similar to that experienced in the last several years.</p> <p>The City regulates development proposed in flood prone areas through its Drainway, Floodway, and Water Course Ordinance and Ordinance #221.</p> <p>Rural density is being proposed in the north area where flood control facilities do not currently exist.</p>	<p>Implementation of the goals and objec- tives of the Safety Element.</p> <p>Provide dates by which the City will implement its flood control programs.</p> <p>Strengthen wording regarding develop- ment in area with flood potential for 100 year storm.</p>
Biological Resources	The flora and fauna of the area can be described as a desert biotic community. The valley floor is characterized by sand dunes and creosote scrub. The mountains support growth of pinyon scrub and some juniper at higher levels.	Alteration of the natural environment caused by grading and construction activities associated with urbanization will result in the loss of portions of existing species of both flora and fauna.	Implementation of the goals and policies of General Plan.

	Existing Conditions	Potential Impacts	Mitigation Measures
<p>Biological Resources (Cont)</p>	<p>Two unique or rare plants existing in the area; the <u>Ditaxis Adenophora</u> and <u>Cynanchum Utahensis</u>.</p> <p>There are five rare or endangered species in the area: The California Bighorn Sheep, Coachella Valley Fringe-Toed Lizard, Flat-Tailed Horned Lizard, the Desert Slender Salamander and the Prairie Falcon.</p> <p>The Living Desert Reserve, State Game Refuge and Boyd Deep Canyon.</p> <p>Research Center are all in the area.</p> <p>Reference the Conservation/Open Space/Recreation Element and Urban Design/Scenic Highway Element of the General Plan Update.</p>	<p>A large portion of the planning area falls within the protective jurisdiction of the Bureau of Land Management, State Game Refuge and Boyd Deep Canyon Research Area which will reduce some of the impacts to these resources.</p> <p>The habitat of the Coachella Valley Fringe-Toed Lizard, Flat-Tailed Lizard and Desert Slender Salamander is disappearing as a result of increased development. In order to survive, these lizards need sand dune environment and blow-sand movement for their habitat. Stabilization of sand movement, to accommodate development reduces the lizard habitats.</p>	

Executive Summary (Continued)

	Existing Conditions	Potential Impacts	Mitigation Measures
Cultural & Scientific Resources	<p>According to the Archaeological Research Unit, University of California at Riverside, 40 archaeological sites exist in the area.</p> <p>Reference the Conservation/Open Space/Recreation/Element of the General Plan Update.</p>	<p>As urbanization of the planning area continues, the potential to disrupt cultural and scientific resources will intensify.</p> <p>Not all of the planning area has been surveyed. The mountainous area having a higher likelihood of having undiscovered archaeological resources.</p>	<p>Adherence to the policies in the Conservation/Open Space and Recreation Element.</p> <p>Consultation with the County of Riverside and UCR Archaeological Unit to determine if a project is in a potentially sensitive area. If so, a survey should be conducted.</p>
Traffic & Circulation	<p>All roadways studied are striped for two lanes, except for: Route 111 is four lanes, some portions of Route 74 are four lanes, El Paseo is four lanes and some portions of 44th are four lanes. All roadways studies are operating within their estimated capacity except for:</p> <p>--Portion of Route 111 west of Monterey is operating at 1.01 of its estimated capacity.</p> <p>--A portion of Country Club Drive east of Monterey is operating at 1.12 of its estimated capacity. (This is directly west of the Palm Desert City limits)</p>	<p>The traffic study reviewed impacts based upon various alternatives as follows:</p> <p><u>General Plan Update</u></p> <ol style="list-style-type: none"> 1. Additional traffic capacity coming from the west into the city is needed today. 2. Additional capacity coming from the east into the city will be needed when the city's population reaches 36,100. 3. Additional capacity to the north approaching Interstate 10 will be needed when the city's population reaches 41,720. 	

	Existing Conditions	Potential Impacts	Mitigation Measures
Traffic & Circulation (Cont)	--Additional capacity to the west is needed today via 36th Street or Frank Sinatra Drive.	4. An Interstate 10 freeway interchange should be considered at Cook Street.	
	Reference Transportation/Circulation Element of the General Plan Update.	<p data-bbox="915 332 1234 365"><u>Adopted General Plan</u></p> <ol style="list-style-type: none"> <li data-bbox="915 389 1447 487">1. Additional traffic capacity coming from the west into the city is needed today. <li data-bbox="915 511 1447 682">2. Additional capacity coming from the east into the city will be needed when the city's population reaches 29,600. <li data-bbox="915 706 1447 876">3. Additional capacity to the north approaching Interstate 10 will be needed when the city's population reaches 26,400. <li data-bbox="915 901 1447 998">4. An Interstate 10 freeway interchange should be considered at Cook Street. <p data-bbox="915 1031 1244 1063"><u>Alternative to Update</u></p> <ol style="list-style-type: none"> <li data-bbox="915 1088 1447 1185">1. Additional traffic capacity from the west is needed today. <li data-bbox="915 1209 1447 1347">2. Additional capacity coming from the east will be needed when the population reaches 36,100. 	<p data-bbox="1468 332 2074 454">Provide additional traffic capacity from the west into the city now. The most logical roadway extension will be 36th Street or Frank Sinatra Drive.</p> <p data-bbox="1468 487 2074 584">Provide additional capacity from the east into the city when the population reaches 36,100.</p> <p data-bbox="1468 617 2074 714">Provide additional capacity to the north approaching Interstate 10 when the city's population reaches 41,720.</p> <p data-bbox="1468 747 2074 844">Actively pursue an Interstate 10 freeway interchange at the future Cook Street location.</p> <p data-bbox="1468 876 2074 941">Adopt guidelines and modify goals and objectives.</p>

	Existing Conditions	Potential Impacts	Mitigation Measures
Traffic & Circulation (Cont)		<p>3. Additional capacity to the north approaching Interstate 10 will be needed when the population reaches 41,720.</p> <p>The proposed circulation system including Kansas can accommodate the estimated traffic volumes of the General Plan Alternative.</p> <p>Cove Community</p> <p>Essentially, this is the current condition facing the City.</p>	
H S C Noise	<p>The principal noise source is created by the transportation system which serve the community.</p> <p>Reference the Noise Element of the General Plan Update.</p>	<p>Noise impacts will be temporary (due to construction activities) and long range due to increased circulation and resulting traffic.</p> <p>The noise element indicates the need for an all city noise study. Until this is done, noise study along major roads should accommodate development proposals.</p> <p>In the northern Sphere of Influence noise is created by the Southern Pacific Railroad and Interstate 10.</p>	<p>Implementation of the Noise Element.</p> <p>Noise studies along major roadways.</p> <p>Consideration of a different land use adjacent to I-10.</p> <p>Careful siting of building and construction techniques to reduce interior noise levels.</p> <p>Construction related noise to be controlled by ordinance.</p>
Climate & Air Quality	<p>The planning area is in the Southeast Desert Air Basin. Air quality standards for oxidant and suspended particulates have been exceeded during the past several years.</p>	<p>As the community continues to grow, impacts to the ambient air environment will occur from three sources:</p>	<p>Implement the policies of the General Plan control construction activities.</p> <p>Continue to work with SCAQMD, SCAG and CVAG for a regional plan.</p>

	Existing Conditions	Potential Impacts	Mitigation Measures
Climate & Air Quality (Cont)		<p>1) construction; 2) automobile emissions; 3) stationary sources; 4) blowsand storms.</p> <p>At ultimate buildout total emission per day could represent 4.9% of the County emission inventory in 1975-76.</p> <p>Impact from blowsand will come in two forms 1) completed projects will be exposed to blowsand transported from the upper valley; 2) construction activities could free sand during grading.</p>	
Public Services/ Facilities & Utilities	Reference the Public Facilities Element of the General Plan Update for following eleven topics		
1. Park & Recreation	The City currently has 40.8 ac of developed parks.	Based on the standard of 6.5 ac per 1000 population the City will need 350 acres by the year 2000. The proposed General Plan makes provisions for 600+ acres.	Implementation of the General Plan.
2. Solid Waste Dis- posal	Solid Waste is currently taken to Edom Hill and Coachella Valley Landfills which have capacity to the year 2000.	By the year 1985 the City's population will be generating 187.6 tons of solid waste per day. By the year 2000 this will increase to 340.2 tons per day.	<p>Encourage recycling facilities.</p> <p>Implementation of the General Plan.</p>

Executive Summary (Continued)

Existing Conditions		Potential Impacts	Mitigation Measures
2. Solid Waste Disposal (Cont)		This will contribute incrementally to the solid waste needing management. Such growth could make resource recovery economically feasible.	
3. Police Protection	Current Service level is 2.5 sheriffs for the existing population.	At the current service level 3.9 sheriffs will be needed by 1985 and 7.0 by the year 2000.	Implementation of the General Plan and expansion of same to include the concept of defensible space.
4. Fire Protection	Currently provided by contractual arrangement with the County of Riverside.	As development of the Northern area occurred a station will be needed at Country Club Drive between Portola and Cook Street and one at Interstate 10 and Monterey Street. Financing of this facilities is a concern of the Fire Department. This could be accomplished by a proposed assessment district.	Prior to annexation of the North Sphere of Influence, via the proposed special assessment district, adequate fire protection must be available. Reflect the need for a fire station at I-10 and Monterey.
5. Water Resources	Groundwater provides the water used in the Valley. This is recharged with water from the Colorado River.	CVWD indicates the Colorado River water has not effected the quality of water in the basin and is in sufficient supply to maintain an adequate water basin supply. By the year 1985 the City and Sphere will be consuming water at a rate of 50 ac/ft/dy. This	Use of automatic water-sensing sprinkling devices. Use of drought tolerant vegetation. Encourage the use of reclaimed water.

	Existing Conditions	Potential Impacts	Mitigation Measures
5. Water Resources (Cont)		This will increase to 105.23 ac/ft/dy by the year 2000. CVWD indicates the water basin has the capacity to provide this water.	
6. Sewer Service	The CVWD provides treatment at the existing Cook Street plant.	Current flows needing treatment are estimated to be approximately 2.03 MGD. This will increase to 4.7 MGD by the year 2000. The Water District indicates that the Cook Facility is planned to have ultimate capacity of 20 MGD. Portions of the Northern Sphere area will be treated at I.D. 58.	Implement the General Plan.
7. Schools	The planning area is served by the Desert Sands Unified School District and the Palm Springs Unified School District. The DSUSD own a 40 acre undeveloped high school site.	Generation rates in the desert are difficult for the school districts to develop. Using a .3 factor, it is estimated that the city's population would include 7847 students K-12 by the year 2000. This would require new/expanded facilities.	Work with the School districts to provide a monitoring system and to implement available legislation.
8. Library	The current service level is 1.25 book/current population.	By the year 2000, 64,800 books would be needed to serve the ultimate population. Additionally, there will be the need for equipment and personnel.	Implement the General Plan.

Executive Summary (Continued)

	Existing Conditions	Potential Impacts	Mitigation Measures
9. Tele- phone Service	General Telephone provides telephone service to the area.	The new circuit office the Telephone Company is planning in the vicinity of 36th Avenue north of Country Club Drive will serve the growing population.	Provide the Telephone Company with a copy of the General Plan.
10. Hospi- tal Service	Currently served by Eisenhower Medical Center and Palm Springs Hospital.	New residents will create an increased demand for hospital services at an unpredictable rate but the hospitals should be able to expand to meet this demand.	None recommended.
11. Public Transit	Provided by Sunline Transit.	The City will incur additional expense to provide service to the North Area which would have been the responsibility of the County of Riverside had annexation not occurred. The Fiscal Impact Report indicates that this is possible.	None recommended.
Relevant Planning	Plans and Programs reviewed were: --The City of Rancho Mirage --The City of Indian Wells --The County of Riverside --The State of California --The Federal Government --Southern California Association of Governments	<u>Rancho Mirage</u> Generally speaking residential abuts residential. Monterey Avenue in Rancho Mirage is proposed to have a Right-of-way of 110' whereas in Palm Desert the Right-of-way is 130' to 146'.	The two Cities should work together to establish the same right-of-way standard for Monterey Avenue.

	Existing Conditions	Potential Impacts	Mitigation Measures
Relevant Planning (Cont)	--Regional Transportation Plan --Coachella Valley Association of Governments	<u>Indian Wells</u>	Implementation of the Urban Design Element and joint review of projects within 300 feet of the adjacent City.
		Although both Cities have the area designated residentially, Palm Desert's plan indicate a higher density. This could create an interface problem without careful review.	
		<u>County of Riverside</u>	The County of Riverside should amend the Cove Plan to reflect the City of Palm Desert's Plan.
		The Cove Community plan is essentially the population already reached within the City.	
		There is potential problems if the two plans indicate different development patterns and the area develops within both jurisdictions..	
		<u>State of California</u>	None Recommended.
		The project supports the cooperative reserach programs and preservation of the Bighorn Sheep.	
		The Palm Desert Plan promotes infill.	

Existing Conditions	Potential Impacts	Mitigation Measures
Relevant Planning (Cont)	<p><u>The Federal Government</u></p> <p>Two primary issues that relate to Federal activities in this area are 1) Flood control and 2) the Fringe-toed lizard.</p> <p>Without improved and/or new regional flood control facilities, new and existing development will continue to be exposed to the threat of flooding.</p> <p>An 18.5 square mile critical habitat and preservation area on the North side of I-10 is being proposed to preserve the fringe-toed lizard.</p>	<p>Reflect on the Land Use plan the location for needed flood control facilities.</p>
	<p><u>Southern California Association of Governments</u></p> <p>The project indicates that the City will grow at a greater rate than the regional average projected in the SCAG-78 Growth Forecast Policy.</p>	<p>None recommended.</p>
	<p><u>Regional Transportation Plan</u></p> <p>No apparent conflict exists.</p>	<p>None recommended.</p>

	Existing Conditions	Potential Impacts	Mitigation Measures
Relevant Planning (Cont)		<u>Coachella Valley Association of Governments</u> CVAG is preparing a Master Environmental Assessment of the Valley which should be available for review soon.	Continue to work with CVAG.
		<u>Southeast Desert Air Basin</u> The SEDAB will continue to be a non-attainment area until air quality in the South Coast Air Basin is improved.	Continued support.
Land Use Compatibility	The City has generally developed with commercial and public uses in the central core with residential located in and around the central core. Newer planned communities are further removed from the core.	Provided development follows the General Plan program and orderly sequence, development should not create a burden or incompatibilities. The North area is basically undeveloped and has some existing environmental constraints to consider.	Consider the preparation of a specific plan for the North Sphere of Influence.
Energy	The existing population consumes energy at a high rate due to the unique climatic conditions. Reference the Energy section of the General Plan Update.	As the community grows it will continue to consume energy. The climatic conditions of the area makes this rate higher than the California average.	Implementation of the General Plan. Encourage less automobile use. Encourage energy efficient site planning and construction.

	Existing Conditions	Potential Impacts	Mitigation Measures
Energy (Cont)		By the year 2000 the community could consume 20.35×10^3 barrels of oil a day to fulfill its energy needs.	
Fiscal	The major revenue sources to the City currently are Sales Tax and New Construction Excise Tax. The major expenses are public protection and capital improvements.	<p>Of the Cove Communities Plan, Adopted General Plan and Proposed Update, each produces a projected operating surplus except the Cove Communities Plan which has a small deficit. The larger surplus is projected for the Adopted General Plan while that expected for the General Plan Update is only 40% of the first.</p> <p>The Cove Communities is inadequate to provide either the revenues required for the projected expenditures or any funds for capital improvements required. The Adopted General Plan is projected to provide a comfortable surplus in operating revenues but is totally unable to generate capital improvement revenues in the required substantial amounts. If the operating surplus is directed to capital improvements, it could be a fiscally viable plan. The General Plan Update is projected to provide substantially more capital improvement revenue and a</p>	Adoption of the Alternative Update Land Use plan presented in Section VI of this report.

Existing Conditions	Potential Impacts	Mitigation Measures
Fiscal (Cont)	<p>small surplus in operations. It also could be a fiscally viable plan.</p> <p>The fiscal significance of the Alternative to Update Plan is the attempt to utilize the property tax revenue opportunity to a greater extent than the update and provide greater capital improvement revenue while creating a larger operating surplus.</p>	

I-C

**ENVIRONMENTAL
IMPACT REPORT
NORTH SPHERE**

	Existing Conditions	Potential Impacts	Mitigation Measures
Geology & Soils	<p>The Northern Sphere of Influence is in an area of sedimentary material, primarily alluvium and dune sand.</p> <p>Within the planning area, the San Andreas Fault to the northeast, presents the main source of earthquake shaking. The South Pass Fault was probably active during the early formation of the San Jacinto Mountains, but there is no evidence to indicate it is active today.</p>	<p>In the northern area the primary geologic hazard that could be experienced would be ground shaking as the result of major earthquakes on the Mission Creek branch of the San Andreas Fault or the San Jacinto Fault.</p>	<p>The geological and soil conditions of the planning area are such that construction which conforms with adopted building codes will insure that new buildings can withstand earthquake vibrations.</p>
Topography	<p>The Northern area could be described as a continuation of the Central Valley Floor, which is included in the City of Palm Desert.</p> <p>Reference the Conservation/Open Space/Recreation and Urban Design/Scenic Highway Elements of the General Plan.</p>	<p>The topographic alteration in the area will be minimal due to its existing flat character. The visual character will change with the appearance of homes and landscaped areas.</p>	<p>Residential development will require protection from blow sand. Mitigation measures will need to be monitored so as not to disturb the habitat of rare and endangered species.</p>
Flood Control	<p>The area is divided by a ridge into two distinct drainage basins. To the north of the ridge, the land slopes steeply to the northeast to a low point paralleling Interstate 10 and the Southern Pacific</p>	<p>Thunderstorms over the valley floor present the primary importance in planning the local drainage system. Although they are infrequent, their intensities are high and can deposit considerable amounts of rainfall</p>	<p>Adoption of North Palm Desert Area Master Drainage Plan and the "Drainage Element" of the City's General Plan.</p>

Executive Summary (Continued)

	Existing Conditions	Potential Impacts	Mitigation Measures
Flood Control (Cont)	<p>railroad tracks. A larger basin of nearly 2/3 the planning area, drains to the south and southwest to the Whitewater River Stormwater Channel. Presently, runoff in the area is of little consequence, however, as development occurs greater volumes of runoff can be expected and the opportunities for inconvenience or damage from flooding will increase.</p>	<p>in short periods. The introduction of impervious materials will increase the runoff potential. Development in the area will be subject to infrequent flooding which occurs on a regional basis.</p>	
Biological Resources	<p>The area has been identified as supporting varied lizard species including the Coachella Valley Fringe-toed Lizard, the Flat Tailed Horned Lizard and the Desert Slender Salamander.</p> <p>Reference EIR on Flood Control Works for Palm Desert, Rancho Mirage and Indian Wells, August 1978.</p>	<p>In order for the listed lizard species to survive they need the sand dune environment and movement of blowsand in their habitat. A potential conflict exists then between development and protecting the lizard species, since development has the potential of stabilizing the active sand dune area.</p>	<p>The endangered lizards are now protected by the State's Endangered Species Act. Provisions are being made to provide a permanent habitat for them north of Interstate 10.</p> <p>Reference EIR on General Plan Update Palm Desert Area and its Spheres of Influence.</p>
Cultural & Scientific Resources	<p>According to Comarc Environmental Assessment and UCR Archaeological Research Unit, no recorded sites exist. However, there is no record of a systematic investigation.</p>	<p>As urbanization of this area begins, the potential to disrupt undiscovered resources will intensify. The North Sphere is not, however, generally considered to be a sensitive area of potential resources since water, shelter and food were not historically available. As a result disruption should be minimized.</p>	<p>Follow the policies of the Conservation/Open Space and Recreation Elements of the City's Updated General Plan. Consultation with County of Riverside and UCR to determine the resources of the area.</p>

	Existing Conditions	Potential Impacts	Mitigation Measures
Traffic & Circulation	The project area is currently served by Bob Hope Drive, Country Club Drive and Interstate 10 via Kubic Road intersection. Figure 1 indicates current traffic volumes.	With or without annexation and development of the northerly sphere of influence, additional roadways serving the west need to be constructed; a freeway interchange between Kubic Road and Washington Street should be pursued; widening of existing and installation of new roadways serving the east need to be constructed; and roadways such as Monterey and Cook should have bridges over the Whitewater River.	Provide additional capacity to the north approaching Interstate 10 as the City's population approaches 41,720. Pursue actively at an I-10 interchange at the future Cook Street location. Adopt guidelines and modify goals and objectives.
Noise	Due to the undeveloped nature of the area, the two noise sources likely to impact the area are the Southern Pacific Railroad and Interstate 10.	Short-term increases in ambient noise levels would occur during construction of any new development. The primary noise generator after construction will be the traffic generated by the developed areas of the City and this Sphere of Influence.	Implementation of the Noise Element. Consideration of different land use adjacent to I-10. Careful siting and construction techniques to reduce interior noise levels. Construction noise controlled by ordinance.
Climate & Air Quality	Air Quality Air Quality standards for oxidant and suspended particulates have been exceeded during the past several years. The high oxidant levels can be partially attributed to pollutants	As the community of Palm Desert continues to grow impacts to the ambient air environment will occur from three sources: 1) during construction; 2) from automobile emissions created by vehicular traffic after completion of the project; and 3) from demand (residential, commercial	Implement the policies of the General Plan. Control construction activities. Continue to work with SCAQMD, SCAG and CVAG for a regional plan.

Executive Summary (Continued)

	Existing Conditions	Potential Impacts	Mitigation Measures
Climate & Air Quality (Cont)	<p>carried from the South Coast Air Basin through San Gorgonio Pass into the Coachella Valley and local vehicular sources. The high levels of particulates results from dust storms in which silt and dust particles are introduced into the atmosphere.</p> <p>Climate</p> <p>The climate of the entire Valley is characterized by high summer and mild winter temperatures, low precipitation, low relative humidity, high evaporation rates, seasonal winds, and high occurrence of sunny days. Additional conditions are provided in the EIR prepared for the 1975 Palm Desert General Plan.</p>	<p>and industrial) for energy resources for heating, lighting and cooling.</p> <p>The north sphere is expected to account for 30% of mobile source and .7% of stationary source emissions projected at total buildout.</p> <p>Blowsand is of particular concern in the project area. If development follows prescribed methods short-term effects can be controlled. The method of control for long term effects is to protect property from direct contact with the blowsand since the City is unable to control the major source: the upper valley. Reference Safety Element of the General Plan.</p>	
Public Service & Utility	<p>The Northern Sphere of Influence is generally undeveloped and as such does not have or require public services and/or utilities. The 4132 persons residing in that area now are provided services as described in the General Plan Update.</p>	<p>The major factor in this area is the provision of infrastructure to service the developing area. Currently property owners are considering establishment of a special assessment district to fund needed improvements. The district under consideration includes about one-half the North Sphere of Influence. A</p>	<p>Mitigation Measures for each service and utility are provided in Section I of the EIR on the General Plan Update. In relationship to the Northern Sphere of Influence it is important that the City work with the property owners to see if the entire Northern Sphere can be included in the special assessment district.</p>

Executive Summary (Continued)

Existing Conditions	Potential Impacts	Mitigation Measures
Public Service & Utility (Cont)	study is now being made regarding the feasibility of the assessment district. It is entirely possible as the study progresses that all of the North Sphere could be included.	
1.) Park & Recreation	Park service is provided by the City of Palm Desert.	The Northern Sphere is proposed to have approximately 45 acres of park at ultimate buildout. Based on the adopted standard of 6.5 ac per 1000 population; the area would need approximately 59 additional acreage. This deficient does not exist when the entire General Plan area is considered.
2.) Solid Waste	Solid waste is currently taken to Edom Hill and Coachella Valley landfills.	The area is expected to generate 37,260 tons per year of solid waste at buildout.
3.) Police Protection	Currently provided by the County of Riverside.	At ultimate buildout the Northern Sphere would require 2.1 police personnel to maintain the current City standard of patrol.
4.) Fire Protection	Fire protection is currently provided by the County of Riverside.	The General Plan proposes a new fire station to be located in the Northern Sphere of Influence prior to development of 30% of the area. Additionally, the

Executive Summary (Continued)

Existing Conditions	Potential Impacts	Mitigation Measures
Public Service & Utility (Cont)	Fire Service indicates the need for a station at Interstate 10 and Monterey to provide adequate response times to the area.	
4.) Fire Protection (Cont)		
5.) Water Supply	Water is supplied by the Coachella Valley Water District.	By the year 2000, the Northern Sphere will account for approximately 31.6 ac/ft/day of the planning area's water consumption. The Coachella Valley Water District indicates that the water basin has the capacity to provide this water.
6.) Sewer Service	The CVWD provides treatment at the existing Cook Street plant.	The Northern Sphere of Influence will account for approximately 1.41 MGD of sewage needing treatment within the entire planning area by the year 2000.
7.) Schools	The area lies partially within the Palm Springs Unified School District and partially within the Desert Sands Unified School District.	Frank Sinatra Drive divides the Northern Sphere area into two school districts. The Palm Springs Unified School District has jurisdiction over the area north of Frank Sinatra and the Desert Sands Unified School District controls the area south of Frank Sinatra.

Executive Summary (Continued)

Existing Conditions	Potential Impacts	Mitigation Measures
Public Service & Utility (Cont) 7.) Schools (Cont)	Using .3 as a typical student generation factor and applying same to the dwelling count planned by the year 2000, would indicate approximately 2339 students. These students would, following current district boundaries, be divided between the two districts. Neither district has the current ability to fund construction of new schools should they become necessary.	
8.) Library Currently provided by the County of Riverside.	By the year 2000, the North Sphere population will require 19,440 books.	
9.) Tele- phone Service Currently provided by General Telephone Company.	The General Telephone Company is planning a new 50,000 circuit office in the vicinity of 36th Avenue, north of Country Club. With this new office the telephone company will have the ability to service the growing area.	
10.) Hospi- tal Now served by Eisenhower Medical Center and Palm Springs Hospital.	As growth occurs there is an increased demand for hospital services. The extent amount, however, it speculative to predict until factors such as age distributions are established.	

Executive Summary (Continued)

	Existing Conditions	Potential Impacts	Mitigation Measures
Public Service & Utility (Cont)			
11.) Tran- sit (Cont)	Provided by Sunline Transit.	The City of Palm Desert will incur additional expense to provide service to the North Area which without annexation would be provided by the County of Riverside.	
Relevant Planning	<p>This issue of relevant planning projects is more appropriately a regional issue and has been discussed in section J of the EIR on the General Plan Update. Planning activities discussed within that document are:</p> <ul style="list-style-type: none"> --Rancho Mirage --Indian Wells --The County of Riverside --The State of California --The Federal Government --Southern California Agency of Governments --Regional Transportation Plan --Coachella Valley Agency of Governments --Southeast Desert Air Basin - Air Quality Management Plan 		

	Existing Conditions	Potential Impacts	Mitigation Measures
Land Use	Nearly 90% of the land located in the sphere is vacant. Residential usage make up approximately 8.6% of the land use. Development pressures are increasing, however, and many projects are presently being considered by the property owners and the City.	Provided the North Area is annexed to the City of Palm Desert, future development will be as proposed in the General Plan. As a result, the goals and policies of the general plan and development procedure will control land uses and direct compatible land uses. Land uses of the type shown for the north area are not inherently incompatible. They do, however, need careful review.	The General Plan provides the needed framework, establishing the goals and objectives of the community. It is possible to go directly from the General Plan to development proposals, however, the City should consider the preparation of an Area or Specific Plan for the Northern Sphere of Influence.
IC9 Energy	Statistics on current energy use is not readily available. Reference Section L of EIR on General Plan Update City of Palm Desert.	The development of the North Sphere of the Palm Desert Area will have an impact on the energy consumption and hopefully encourage local government to play a more important part in regulating and providing for energy measures. The General Plan provides some sound methods to ensure that conservation of energy resources will be in mind when development is being considered in the North Sphere. The Energy Element of the General Plan has set out guidelines which should result in a lower rate of energy consumption, if these guidelines are followed.	Implement mitigation measures and policies given in Section L of the EIR on the General Plan Update City of Palm Desert.

	Existing Conditions	Potential Impacts	Mitigation Measures
Energy (Cont)		<p data-bbox="867 212 1266 309">Future energy consumption estimates for buildout in the North Sphere are:</p> <p data-bbox="867 340 1234 401">Electricity: 4,976,475 kwh/int</p> <p data-bbox="867 432 1251 494">Natural Gas: 15,576 therms/day</p>	
Fiscal	<p data-bbox="296 566 772 1105">The Northern Sphere of Influence is currently within the jurisdiction control of the County of Riverside and as such, the City of Palm Desert does not receive revenues or have expenditures directly applicable to the area. It is quite likely that the current population of the area shops within Palm Desert and as a result contributes to sales tax revenues. It is not possible, however, to assign a value to this activity as it relates to the City of Palm Desert.</p>	<p data-bbox="863 566 1360 1205">Within the fiscal section of the EIR on the General Plan Update there is contained a detailed analysis of the proposed update, the currently adopted plan, the Cove Community Plan and an alternative developed through this review process. Within that analysis the Northern Area was examined in more depth for the proposed project and the alternative. Since these studies are only valid if the area annexes to the City, they need to be viewed in light of the total fiscal conditions surrounding the community. The reader is referred to Section M of the EIR on the General Plan Update.</p> <p data-bbox="863 1244 1346 1406">Annexation of the North Sphere Area does have a significant fiscal benefit associated with it, that is property tax. The City currently assesses no</p>	<p data-bbox="1434 566 2032 659">Adoption of the Alternative to Update land use plan given in Section VI of the EIR on the General Plan Update.</p>

Executive Summary (Continued)

Existing Conditions	Potential Impacts	Mitigation Measures
Fiscal (Cont)	property tax, but it will begin to receive some of the County's collected property taxes in those areas which have been annexed to the City since the passage of Proposition 13. In FY 1980-81 this is expected to generate \$60,000.	

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sary, revised to ensure that any adverse effects created by continuing development be minimized.

CONSERVATION/OPEN SPACE/RECREATION

In summary, this element inventories and evaluates the existing natural resources (such as, endangered species and plants), park facilities and historical buildings within the City and surrounding area.

In conclusion, this element establishes guidelines for the development of park facilities and for the preservation and protection of the natural environment during the continuing development of the City.

ENERGY

The primary intent of this element is to provide the necessary planning (gathering and analyzing data, establishing goals and objectives, and formulating implementation policies and programs), to make the City more energy efficient.

In conclusion, local energy consumption levels could be reduced. The element describes how land use controls, such as zoning, subdivision regulations, site plan review can be refined or developed to improve the efficiency of energy use, and reduce local consumption of non-renewable energy sources, such as oil.

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I-B

ENVIRONMENTAL IMPACT REPORT

GENERAL PLAN

	Existing Conditions	Potential Impacts	Mitigation Measures
Geology & Soils	<p>Generally, the leveler portions of the community are located on recent (Holocene) alluvium derived from the Santa Rosa Mountains with Dead Indian Creek being the primary contributor. The Santa Rosa Mountains to the south and west of the City consist of hard bedrock of igenous and metamorphic types.</p> <p>Soil types are generally Caritas sand and Myoma fine sand.</p> <p>Reference the Seismic Safety Element of the General Plan Update.</p>	<p>The primary geological hazard that the City could experience would be ground shaking as the result of major earthquakes on the Mission Creek branch of the San Andreas Fault or the San Jacinto Fault.</p> <p>The amount of groundshaking an area or structure can be expected to receive is a result of 1) distance from the source and 2) geographic differentiation of soil and bedrock conditions.</p> <p>It is unlikely that surface rupture, tsumani, seiches, settlement nor liquefaction will present a problem.</p> <p>Potential landslides in hillside areas may necessitate further investigation.</p>	<p>Conformance with adopted building codes.</p> <p>Development in hillside areas with probable instabilities should be accompanied by a geotechnical investigation addressing soil, groundwater, geologic and seismic conditions.</p>
Topography	<p>The planning area, which covers 34,800 acres, can be divided into three natural physical areas. These areas are: the Northern Valley Floor, the Central Valley Floor and the San Jacinto Mountains.</p>	<p>Urbanization of the area will effect the topography and visual character of the general area. This should be minimized by the objectives contained in the General Plan. Additionally, the majority of the urbanization is concentrated in the leveler central and northern Valley Floor instead of the hillside</p>	<p>Implementation of the goals and objectives of the General Plan.</p>

Executive Summary (Continued)

	Existing Conditions	Potential Impacts	Mitigation Measures
Topography (Cont)	Reference the Conservation/ Open Space/Recreation Element and the Urban Design/Scenic Highway Element on the General Plan Update.	area. The greater percentage of the San Jacinto Mountains area is planned to remain in its natural state.	
Flood Control	<p>The planning area is protected by a system of dikes and chan- nels maintained by the Coach- ella Valley Water District.</p> <p>The North Sphere of Influence does not have major facili- ties, drainage following natural flows until they pene- trate the soil and/or White- water River/Coachella Valley Stormwater Channel.</p> <p>Past intense thunderstorms and tropical storms have subjected the planning area to flash flooding.</p> <p>Reference City's Master Plans of Drainage.</p>	<p>Without new and/or improved facilities both on a regional basis and local level, new and existing development will be subjected to flooding similar to that experienced in the last several years.</p> <p>The City regulates development proposed in flood prone areas through its Drainway, Floodway, and Water Course Ordinance and Ordinance #221.</p> <p>Rural density is being proposed in the north area where flood control facilities do not currently exist.</p>	<p>Implementation of the goals and objec- tives of the Safety Element.</p> <p>Provide dates by which the City will implement its flood control programs.</p> <p>Strengthen wording regarding develop- ment in area with flood potential for 100 year storm.</p>
Biological Resources	The flora and fauna of the area can be described as a desert biotic community. The valley floor is characterized by sand dunes and creosote scrub. The mountains support growth of pinyon scrub and some juniper at higher levels.	Alteration of the natural environment caused by grading and construction activities associated with urbanization will result in the loss of portions of existing species of both flora and fauna.	Implementation of the goals and policies of General Plan.

	Existing Conditions	Potential Impacts	Mitigation Measures
Biological Resources (Cont)	<p>Two unique or rare plants existing in the area; the <u>Ditaxis Adenophora</u> and <u>Cynanchum Utahensis</u>.</p> <p>There are five rare or endangered species in the area: The California Bighorn Sheep, Coachella Valley Fringe-Toed Lizard, Flat-Tailed Horned Lizard, the Desert Slender Salamander and the Prairie Falcon.</p> <p>The Living Desert Reserve, State Game Refuge and Boyd Deep Canyon.</p> <p>Research Center are all in the area.</p> <p>Reference the Conservation/Open Space/Recreation Element and Urban Design/Scenic Highway Element of the General Plan Update.</p>	<p>A large portion of the planning area falls within the protective jurisdiction of the Bureau of Land Management, State Game Refuge and Boyd Deep Canyon Research Area which will reduce some of the impacts to these resources.</p> <p>The habitat of the Coachella Valley Fringe-Toed Lizard, Flat-Tailed Lizard and Desert Slender Salamander is disappearing as a result of increased development. In order to survive, these lizards need sand dune environment and blow-sand movement for their habitat. Stabilization of sand movement, to accommodate development reduces the lizard habitats.</p>	

	Existing Conditions	Potential Impacts	Mitigation Measures
Cultural & Scientific Resources	<p>According to the Archaeological Research Unit, University of California at Riverside, 40 archaeological sites exist in the area.</p> <p>Reference the Conservation/Open Space/Recreation/Element of the General Plan Update.</p>	<p>As urbanization of the planning area continues, the potential to disrupt cultural and scientific resources will intensify.</p> <p>Not all of the planning area has been surveyed. The mountainous area having a higher likelihood of having undiscovered archaeological resources.</p>	<p>Adherence to the policies in the Conservation/Open Space and Recreation Element.</p> <p>Consultation with the County of Riverside and UCR Archaeological Unit to determine if a project is in a potentially sensitive area. If so, a survey should be conducted.</p>
Traffic & Circulation	<p>All roadways studied are striped for two lanes, except for: Route 111 is four lanes, some portions of Route 74 are four lanes, El Paseo is four lanes and some portions of 44th are four lanes. All roadways studies are operating within their estimated capacity except for:</p> <p>--Portion of Route 111 west of Monterey is operating at 1.01 of its estimated capacity.</p> <p>--A portion of Country Club Drive east of Monterey is operating at 1.12 of its estimated capacity. (This is directly west of the Palm Desert City limits)</p>	<p>The traffic study reviewed impacts based upon various alternatives as follows:</p> <p><u>General Plan Update</u></p> <ol style="list-style-type: none"> 1. Additional traffic capacity coming from the west into the city is needed today. 2. Additional capacity coming from the east into the city will be needed when the city's population reaches 36,100. 3. Additional capacity to the north approaching Interstate 10 will be needed when the city's population reaches 41,720. 	

	Existing Conditions	Potential Impacts	Mitigation Measures
Traffic & Circulation (Cont)	--Additional capacity to the west is needed today via 36th Street or Frank Sinatra Drive.	4. An Interstate 10 freeway interchange should be considered at Cook Street.	
	Reference Transportation/Circulation Element of the General Plan Update.	<p data-bbox="922 332 1235 365"><u>Adopted General Plan</u></p> <ol style="list-style-type: none"> <li data-bbox="922 397 1407 495">1. Additional traffic capacity coming from the west into the city is needed today. <li data-bbox="922 527 1407 690">2. Additional capacity coming from the east into the city will be needed when the city's population reaches 29,600. <li data-bbox="922 722 1397 885">3. Additional capacity to the north approaching Interstate 10 will be needed when the city's population reaches 26,400. <li data-bbox="922 917 1397 1015">4. An Interstate 10 freeway interchange should be considered at Cook Street. <p data-bbox="922 1047 1256 1079"><u>Alternative to Update</u></p> <ol style="list-style-type: none"> <li data-bbox="922 1112 1407 1209">1. Additional traffic capacity from the west is needed today. <li data-bbox="922 1242 1397 1356">2. Additional capacity coming from the east will be needed when the population reaches 36,100. 	<p data-bbox="1485 332 2089 462">Provide additional traffic capacity from the west into the city now. The most logical roadway extension will be 36th Street or Frank Sinatra Drive.</p> <p data-bbox="1485 495 2089 592">Provide additional capacity from the east into the city when the population reaches 36,100.</p> <p data-bbox="1485 625 2089 722">Provide additional capacity to the north approaching Interstate 10 when the city's population reaches 41,720.</p> <p data-bbox="1485 755 2089 852">Actively pursue an Interstate 10 freeway interchange at the future Cook Street location.</p> <p data-bbox="1485 885 2089 950">Adopt guidelines and modify goals and objectives.</p>

	Existing Conditions	Potential Impacts	Mitigation Measures
Traffic & Circulation (Cont)		<p>3. Additional capacity to the north approaching Interstate 10 will be needed when the population reaches 41,720.</p> <p>The proposed circulation system including Kansas can accommodate the estimated traffic volumes of the General Plan Alternative.</p> <p>Cove Community</p> <p>Essentially, this is the current condition facing the City.</p>	
H S Noise	<p>The principal noise source is created by the transportation system which serve the community.</p> <p>Reference the Noise Element of the General Plan Update.</p>	<p>Noise impacts will be temporary (due to construction activities) and long range due to increased circulation and resulting traffic.</p> <p>The noise element indicates the need for an all city noise study. Until this is done, noise study along major roads should accommodate development proposals.</p> <p>In the northern Sphere of Influence noise is created by the Southern Pacific Railroad and Interstate 10.</p>	<p>Implementation of the Noise Element.</p> <p>Noise studies along major roadways.</p> <p>Consideration of a different land use adjacent to I-10.</p> <p>Careful siting of building and construction techniques to reduce interior noise levels.</p> <p>Construction related noise to be controlled by ordinance.</p>
Climate & Air Quality	<p>The planning area is in the Southeast Desert Air Basin. Air quality standards for oxidant and suspended particulates have been exceeded during the past several years.</p>	<p>As the community continues to grow, impacts to the ambient air environment will occur from three sources:</p>	<p>Implement the policies of the General Plan control construction activities.</p> <p>Continue to work with SCAQMD, SCAG and CVAG for a regional plan.</p>

Existing Conditions		Potential Impacts	Mitigation Measures
Climate & Air Quality (Cont)		<p>1) construction; 2) automobile emissions; 3) stationary sources; 4) blowsand storms.</p> <p>At ultimate buildout total emission per day could represent 4.9% of the County emission inventory in 1975-76.</p> <p>Impact from blowsand will come in two forms 1) completed projects will be exposed to blowsand transported from the upper valley; 2) construction activities could free sand during grading.</p>	
Public Services/ Facilities & Utilities	Reference the Public Facilities Element of the General Plan Update for following eleven topics		
1. Park & Recreation	The City currently has 40.8 ac of developed parks.	Based on the standard of 6.5 ac per 1000 population the City will need 350 acres by the year 2000. The proposed General Plan makes provisions for 600+ acres.	Implementation of the General Plan.
2. Solid Waste Disposal	Solid Waste is currently taken to Edom Hill and Coachella Valley Landfills which have capacity to the year 2000.	By the year 1985 the City's population will be generating 187.6 tons of solid waste per day. By the year 2000 this will increase to 340.2 tons per day.	Encourage recycling facilities. Implementation of the General Plan.

Executive Summary (Continued)

	Existing Conditions	Potential Impacts	Mitigation Measures
2. Solid Waste Disposal (Cont)		This will contribute incrementally to the solid waste needing management. Such growth could make resource recovery economically feasible.	
3. Police Protection	Current Service level is 2.5 sheriffs for the existing population.	At the current service level 3.9 sheriffs will be needed by 1985 and 7.0 by the year 2000.	Implementation of the General Plan and expansion of same to include the concept of defensible space.
4. Fire Protection	Currently provided by contractual arrangement with the County of Riverside.	As development of the Northern area occurred a station will be needed at Country Club Drive between Portola and Cook Street and one at Interstate 10 and Monterey Street. Financing of this facilities is a concern of the Fire Department. This could be accomplished by a proposed assessment district.	Prior to annexation of the North Sphere of Influence, via the proposed special assessment district, adequate fire protection must be available. Reflect the need for a fire station at I-10 and Monterey.
5. Water Resources	Groundwater provides the water used in the Valley. This is recharged with water from the Colorado River.	CVWD indicates the Colorado River water has not effected the quality of water in the basin and is in sufficient supply to maintain an adequate water basin supply. By the year 1985 the City and Sphere will be consuming water at a rate of 50 ac/ft/dy. This	Use of automatic water-sensing sprinkling devices. Use of drought tolerant vegetation. Encourage the use of reclaimed water.

Executive Summary (Continued)

	Existing Conditions	Potential Impacts	Mitigation Measures
5. Water Resources (Cont)		This will increase to 105.23 ac/ft/dy by the year 2000. CVWD indicates the water basin has the capacity to provide this water.	
6. Sewer Service	The CVWD provides treatment at the existing Cook Street plant.	Current flows needing treatment are estimated to be approximately 2.03 MGD. This will increase to 4.7 MGD by the year 2000. The Water District indicates that the Cook Facility is planned to have ultimate capacity of 20 MGD. Portions of the Northern Sphere area will be treated at I.D. 58.	Implement the General Plan.
7. Schools	The planning area is served by the Desert Sands Unified School District and the Palm Springs Unified School District. The DSUSD own a 40 acre undeveloped high school site.	Generation rates in the desert are difficult for the school districts to develop. Using a .3 factor, it is estimated that the city's population would include 7847 students K-12 by the year 2000. This would require new/expanded facilities.	Work with the School districts to provide a monitoring system and to implement available legislation.
8. Library	The current service level is 1.25 book/current population.	By the year 2000, 64,800 books would be needed to serve the ultimate population. Additionally, there will be the need for equipment and personnel.	Implement the General Plan.

Executive Summary (Continued)

	Existing Conditions	Potential Impacts	Mitigation Measures
9. Tele- phone Service	General Telephone provides telephone service to the area.	The new circuit office the Telephone Company is planning in the vicinity of 36th Avenue north of Country Club Drive will serve the growing population.	Provide the Telephone Company with a copy of the General Plan.
10. Hospi- tal Service	Currently served by Eisenhower Medical Center and Palm Springs Hospital.	New residents will create an increased demand for hospital services at an unpredictable rate but the hospitals should be able to expand to meet this demand.	None recommended.
11. Public Transit	Provided by Sunline Transit.	The City will incur additional expense to provide service to the North Area which would have been the responsibility of the County of Riverside had annexation not occurred. The Fiscal Impact Report indicates that this is possible.	None recommended.
Relevant Planning	Plans and Programs reviewed were: --The City of Rancho Mirage --The City of Indian Wells --The County of Riverside --The State of California --The Federal Government --Southern California Association of Governments	<u>Rancho Mirage</u> Generally speaking residential abuts residential. Monterey Avenue in Rancho Mirage is proposed to have a Right-of-way of 110' whereas in Palm Desert the Right-of-way is 130' to 146'.	The two Cities should work together to establish the same right-of-way standard for Monterey Avenue.

	Existing Conditions	Potential Impacts	Mitigation Measures
Relevant Planning (Cont)	--Regional Transportation Plan --Coachella Valley Association of Governments	<u>Indian Wells</u> Although both Cities have the area designated residentially, Palm Desert's plan indicate a higher density. This could create an interface problem without careful review.	Implementation of the Urban Design Element and joint review of projects within 300 feet of the adjacent City.
		<u>County of Riverside</u> The Cove Community plan is essentially the population already reached within the City. There is potential problems if the two plans indicate different development patterns and the area develops within both jurisdictions..	The County of Riverside should amend the Cove Plan to reflect the City of Palm Desert's Plan.
		<u>State of California</u> The project supports the cooperative reserach programs and preservation of the Bighorn Sheep. The Palm Desert Plan promotes infill.	None Recommended.

Existing Conditions	Potential Impacts	Mitigation Measures
Relevant Planning (Cont)	<p><u>The Federal Government</u></p> <p>Two primary issues that relate to Federal activities in this area are 1) Flood control and 2) the Fringe-toed lizard.</p> <p>Without improved and/or new regional flood control facilities, new and existing development will continue to be exposed to the threat of flooding.</p> <p>An 18.5 square mile critical habitat and preservation area on the North side of I-10 is being proposed to preserve the fringe-toed lizard.</p>	<p>Reflect on the Land Use plan the location for needed flood control facilities.</p>
	<p><u>Southern California Association of Governments</u></p> <p>The project indicates that the City will grow at a greater rate than the regional average projected in the SCAG-78 Growth Forecast Policy.</p>	<p>None recommended.</p>
	<p><u>Regional Transportation Plan</u></p> <p>No apparent conflict exists.</p>	<p>None recommended.</p>

	Existing Conditions	Potential Impacts	Mitigation Measures
Relevant Planning (Cont)		<u>Coachella Valley Association of Governments</u> CVAG is preparing a Master Environmental Assessment of the Valley which should be available for review soon.	Continue to work with CVAG.
		<u>Southeast Desert Air Basin</u> The SEDAB will continue to be a non-attainment area until air quality in the South Coast Air Basin is improved.	Continued support.
Land Use Compatibility	The City has generally developed with commercial and public uses in the central core with residential located in and around the central core. Newer planned communities are further removed from the core.	Provided development follows the General Plan program and orderly sequence, development should not create a burden or incompatibilities. The North area is basically undeveloped and has some existing environmental constraints to consider.	Consider the preparation of a specific plan for the North Sphere of Influence.
Energy	The existing population consumes energy at a high rate due to the unique climatic conditions. Reference the Energy section of the General Plan Update.	As the community grows it will continue to consume energy. The climatic conditions of the area makes this rate higher than the California average.	Implementation of the General Plan. Encourage less automobile use. Encourage energy efficient site planning and construction.

Existing Conditions	Potential Impacts	Mitigation Measures
Energy (Cont)	By the year 2000 the community could consume 20.35×10^3 barrels of oil a day to fulfill its energy needs.	
Fiscal	<p>Of the Cove Communities Plan, Adopted General Plan and Proposed Update, each produces a projected operating surplus except the Cove Communities Plan which has a small deficit. The larger surplus is projected for the Adopted General Plan while that expected for the General Plan Update is only 40% of the first.</p> <p>The Cove Communities is inadequate to provide either the revenues required for the projected expenditures or any funds for capital improvements required. The Adopted General Plan is projected to provide a comfortable surplus in operating revenues but is totally unable to generate capital improvement revenues in the required substantial amounts. If the operating surplus is directed to capital improvements, it could be a fiscally viable plan. The General Plan Update is projected to provide substantially more capital improvement revenue and a</p>	Adoption of the Alternative Update Land Use plan presented in Section VI of this report.

Existing Conditions	Potential Impacts	Mitigation Measures
Fiscal (Cont)	<p>small surplus in operations. It also could be a fiscally viable plan.</p> <p>The fiscal significance of the Alternative to Update Plan is the attempt to utilize the property tax revenue opportunit- ity to a greater extent than the update and provide greater capital improvement revenue while creating a larger oper- ating surplus.</p>	

I-C

**ENVIRONMENTAL
IMPACT REPORT
NORTH SPHERE**

	Existing Conditions	Potential Impacts	Mitigation Measures
Geology & Soils	<p>The Northern Sphere of Influence is in an area of sedimentary material, primarily alluvium and dune sand.</p> <p>Within the planning area, the San Andreas Fault to the northeast, presents the main source of earthquake shaking. The South Pass Fault was probably active during the early formation of the San Jacinto Mountains, but there is no evidence to indicate it is active today.</p>	<p>In the northern area the primary geologic hazard that could be experienced would be ground shaking as the result of major earthquakes on the Mission Creek branch of the San Andreas Fault or the San Jacinto Fault.</p>	<p>The geological and soil conditions of the planning area are such that construction which conforms with adopted building codes will insure that new buildings can withstand earthquake vibrations.</p>
Topography	<p>The Northern area could be described as a continuation of the Central Valley Floor, which is included in the City of Palm Desert.</p> <p>Reference the Conservation/Open Space/Recreation and Urban Design/Scenic Highway Elements of the General Plan.</p>	<p>The topographic alteration in the area will be minimal due to its existing flat character. The visual character will change with the appearance of homes and landscaped areas.</p>	<p>Residential development will require protection from blow sand. Mitigation measures will need to be monitored so as not to disturb the habitat of rare and endangered species.</p>
Flood Control	<p>The area is divided by a ridge into two distinct drainage basins. To the north of the ridge, the land slopes steeply to the northeast to a low point paralleling Interstate 10 and the Southern Pacific</p>	<p>Thunderstorms over the valley floor present the primary importance in planning the local drainage system. Although they are infrequent, their intensities are high and can deposit considerable amounts of rainfall</p>	<p>Adoption of North Palm Desert Area Master Drainage Plan and the "Drainage Element" of the City's General Plan.</p>

Executive Summary (Continued)

	Existing Conditions	Potential Impacts	Mitigation Measures
Flood Control (Cont)	<p>railroad tracks. A larger basin of nearly 2/3 the planning area, drains to the south and southwest to the Whitewater River Stormwater Channel. Presently, runoff in the area is of little consequence, however, as development occurs greater volumes of runoff can be expected and the opportunities for inconvenience or damage from flooding will increase.</p>	<p>in short periods. The introduction of impervious materials will increase the runoff potential. Development in the area will be subject to infrequent flooding which occurs on a regional basis.</p>	
Biological Resources	<p>The area has been identified as supporting varied lizard species including the Coachella Valley Fringe-toed Lizard, the Flat Tailed Horned Lizard and the Desert Slender Salamander.</p> <p>Reference EIR on Flood Control Works for Palm Desert, Rancho Mirage and Indian Wells, August 1978.</p>	<p>In order for the listed lizard species to survive they need the sand dune environment and movement of blowsand in their habitat. A potential conflict exists then between development and protecting the lizard species, since development has the potential of stabilizing the active sand dune area.</p>	<p>The endangered lizards are now protected by the State's Endangered Species Act. Provisions are being made to provide a permanent habitat for them north of Interstate 10.</p> <p>Reference EIR on General Plan Update Palm Desert Area and its Spheres of Influence.</p>
Cultural & Scientific Resources	<p>According to Comarc Environmental Assessment and UCR Archaeological Research Unit, no recorded sites exist. However, there is no record of a systematic investigation.</p>	<p>As urbanization of this area begins, the potential to disrupt undiscovered resources will intensify. The North Sphere is not, however, generally considered to be a sensitive area of potential resources since water, shelter and food were not historically available. As a result disruption should be minimized.</p>	<p>Follow the policies of the Conservation/Open Space and Recreation Elements of the City's Updated General Plan. Consultation with County of Riverside and UCR to determine the resources of the area.</p>

	Existing Conditions	Potential Impacts	Mitigation Measures
Traffic & Circulation	The project area is currently served by Bob Hope Drive, Country Club Drive and Interstate 10 via Kubic Road intersection. Figure 1 indicates current traffic volumes.	With or without annexation and development of the northerly sphere of influence, additional roadways serving the west need to be constructed; a freeway interchange between Kubic Road and Washington Street should be pursued; widening of existing and installation of new roadways serving the east need to be constructed; and roadways such as Monterey and Cook should have bridges over the Whitewater River.	Provide additional capacity to the north approaching Interstate 10 as the City's population approaches 41,720. Pursue actively at an I-10 interchange at the future Cook Street location. Adopt guidelines and modify goals and objectives.
Noise	Due to the undeveloped nature of the area, the two noise sources likely to impact the area are the Southern Pacific Railroad and Interstate 10.	Short-term increases in ambient noise levels would occur during construction of any new development. The primary noise generator after construction will be the traffic generated by the developed areas of the City and this Sphere of Influence.	Implementation of the Noise Element. Consideration of different land use adjacent to I-10. Careful siting and construction techniques to reduce interior noise levels. Construction noise controlled by ordinance.
Climate & Air Quality	Air Quality Air Quality standards for oxidant and suspended particulates have been exceeded during the past several years. The high oxidant levels can be partially attributed to pollutants	As the community of Palm Desert continues to grow impacts to the ambient air environment will occur from three sources: 1) during construction; 2) from automobile emissions created by vehicular traffic after completion of the project; and 3) from demand (residential, commercial	Implement the policies of the General Plan. Control construction activities. Continue to work with SCAQMD, SCAG and CVAG for a regional plan.

Executive Summary (Continued)

	Existing Conditions	Potential Impacts	Mitigation Measures
Climate & Air Quality (Cont)	<p>carried from the South Coast Air Basin through San Gorgonio Pass into the Coachella Valley and local vehicular sources. The high levels of particulates results from dust storms in which silt and dust particles are introduced into the atmosphere.</p> <p>Climate</p> <p>The climate of the entire Valley is characterized by high summer and mild winter temperatures, low precipitation, low relative humidity, high evaporation rates, seasonal winds, and high occurrence of sunny days. Additional conditions are provided in the EIR prepared for the 1975 Palm Desert General Plan.</p>	<p>and industrial) for energy resources for heating, lighting and cooling.</p> <p>The north sphere is expected to account for 30% of mobile source and .7% of stationary source emissions projected at total buildout.</p> <p>Blowsand is of particular concern in the project area. If development follows prescribed methods short-term effects can be controlled. The method of control for long term effects is to protect property from direct contact with the blowsand since the City is unable to control the major source: the upper valley. Reference Safety Element of the General Plan.</p>	
Public Service & Utility	<p>The Northern Sphere of Influence is generally undeveloped and as such does not have or require public services and/or utilities. The 4132 persons residing in that area now are provided services as described in the General Plan Update.</p>	<p>The major factor in this area is the provision of infrastructure to service the developing area. Currently property owners are considering establishment of a special assessment district to fund needed improvements. The district under consideration includes about one-half the North Sphere of Influence. A</p>	<p>Mitigation Measures for each service and utility are provided in Section I of the EIR on the General Plan Update. In relationship to the Northern Sphere of Influence it is important that the City work with the property owners to see if the entire Northern Sphere can be included in the special assessment district.</p>

Executive Summary (Continued)

	Existing Conditions	Potential Impacts	Mitigation Measures
Public Service & Utility (Cont)		study is now being made regarding the feasibility of the assessment district. It is entirely possible as the study progresses that all of the North Sphere could be included.	
1.) Park & Recreation	Park service is provided by the City of Palm Desert.	The Northern Sphere is proposed to have approximately 45 acres of park at ultimate buildout. Based on the adopted standard of 6.5 ac per 1000 population; the area would need approximately 59 additional acreage. This deficient does not exist when the entire General Plan area is considered.	
2.) Solid Waste	Solid waste is currently taken to Edom Hill and Coachella Valley landfills.	The area is expected to generate 37,260 tons per year of solid waste at buildout.	
3.) Police Protection	Currently provided by the County of Riverside.	At ultimate buildout the Northern Sphere would require 2.1 police personnel to maintain the current City standard of patrol.	
4.) Fire Protection	Fire protection is currently provided by the County of Riverside.	The General Plan proposes a new fire station to be located in the Northern Sphere of Influence prior to development of 30% of the area. Additionally, the	

Executive Summary (Continued)

Existing Conditions	Potential Impacts	Mitigation Measures
Public Service & Utility (Cont)	Fire Service indicates the need for a station at Interstate 10 and Monterey to provide adequate response times to the area.	
4.) Fire Protection (Cont)		
5.) Water Supply	Water is supplied by the Coachella Valley Water District.	By the year 2000, the Northern Sphere will account for approximately 31.6 ac/ft/day of the planning area's water consumption. The Coachella Valley Water District indicates that the water basin has the capacity to provide this water.
6.) Sewer Service	The CVWD provides treatment at the existing Cook Street plant.	The Northern Sphere of Influence will account for approximately 1.41 MGD of sewage needing treatment within the entire planning area by the year 2000.
7.) Schools	The area lies partially within the Palm Springs Unified School District and partially within the Desert Sands Unified School District.	Frank Sinatra Drive divides the Northern Sphere area into two school districts. The Palm Springs Unified School District has jurisdiction over the area north of Frank Sinatra and the Desert Sands Unified School District controls the area south of Frank Sinatra.

Executive Summary (Continued)

	Existing Conditions	Potential Impacts	Mitigation Measures
Public Service & Utility (Cont) 7.) Schools (Cont)		Using .3 as a typical student generation factor and applying same to the dwelling count planned by the year 2000, would indicate approximately 2339 students. These students would, following current district boundaries, be divided between the two districts. Neither district has the current ability to fund construction of new schools should they become necessary.	
8.) Library	Currently provided by the County of Riverside.	By the year 2000, the North Sphere population will require 19,440 books.	
9.) Telephone Service	Currently provided by General Telephone Company.	The General Telephone Company is planning a new 50,000 circuit office in the vicinity of 36th Avenue, north of Country Club. With this new office the telephone company will have the ability to service the growing area.	
10.) Hospital	Now served by Eisenhower Medical Center and Palm Springs Hospital.	As growth occurs there is an increased demand for hospital services. The extent amount, however, it speculative to predict until factors such as age distributions are established.	

EC7

Executive Summary (Continued)

	Existing Conditions	Potential Impacts	Mitigation Measures
Public Service & Utility (Cont)			
11.) Tran- sit (Cont)	Provided by Sunline Transit.	The City of Palm Desert will incur additional expense to provide service to the North Area which without annexation would be provided by the County of Riverside.	
Relevant Planning	<p>This issue of relevant planning projects is more appropriately a regional issue and has been discussed in section J of the EIR on the General Plan Update. Planning activities discussed within that document are:</p> <ul style="list-style-type: none"> --Rancho Mirage --Indian Wells --The County of Riverside --The State of California --The Federal Government --Southern California Agency of Governments --Regional Transportation Plan --Coachella Valley Agency of Governments --Southeast Desert Air Basin - Air Quality Management Plan 		

	Existing Conditions	Potential Impacts	Mitigation Measures
Land Use	Nearly 90% of the land located in the sphere is vacant. Residential usage make up approximately 8.6% of the land use. Development pressures are increasing, however, and many projects are presently being considered by the property owners and the City.	Provided the North Area is annexed to the City of Palm Desert, future development will be as proposed in the General Plan. As a result, the goals and policies of the general plan and development procedure will control land uses and direct compatible land uses. Land uses of the type shown for the north area are not inherently incompatible. They do, however, need careful review.	The General Plan provides the needed framework, establishing the goals and objectives of the community. It is possible to go directly from the General Plan to development proposals, however, the City should consider the preparation of an Area or Specific Plan for the Northern Sphere of Influence.
Energy	Statistics on current energy use is not readily available. Reference Section L of EIR on General Plan Update City of Palm Desert.	The development of the North Sphere of the Palm Desert Area will have an impact on the energy consumption and hopefully encourage local government to play a more important part in regulating and providing for energy measures. The General Plan provides some sound methods to ensure that conservation of energy resources will be in mind when development is being considered in the North Sphere. The Energy Element of the General Plan has set out guidelines which should result in a lower rate of energy consumption, if these guidelines are followed.	Implement mitigation measures and policies given in Section L of the EIR on the General Plan Update City of Palm Desert.

	Existing Conditions	Potential Impacts	Mitigation Measures
Energy (Cont)		<p>Future energy consumption estimates for buildout in the North Sphere are:</p> <p>Electricity: 4,976,475 kwh/mt</p> <p>Natural Gas: 15,576 therms/day</p>	
Fiscal	<p>The Northern Sphere of Influence is currently within the jurisdiction control of the County of Riverside and as such, the City of Palm Desert does not receive revenues or have expenditures directly applicable to the area. It is quite likely that the current population of the area shops within Palm Desert and as a result contributes to sales tax revenues. It is not possible, however, to assign a value to this activity as it relates to the City of Palm Desert.</p>	<p>Within the fiscal section of the EIR on the General Plan Update there is contained a detailed analysis of the proposed update, the currently adopted plan, the Cove Community Plan and an alternative developed through this review process. Within that analysis the Northern Area was examined in more depth for the proposed project and the alternative. Since these studies are only valid if the area annexes to the City, they need to be viewed in light of the total fiscal conditions surrounding the community. The reader is referred to Section M of the EIR on the General Plan Update.</p> <p>Annexation of the North Sphere Area does have a significant fiscal benefit associated with it, that is property tax. The City currently assesses no</p>	<p>Adoption of the Alternative to Update land use plan given in Section VI of the EIR on the General Plan Update.</p>

Existing Conditions	Potential Impacts	Mitigation Measures
Fiscal (Cont)	property tax, but it will begin to receive some of the County's collected property taxes in those areas which have been annexed to the City since the passage of Proposition 13. In FY 1980-81 this is expected to generate \$60,000.	

III-B

TRANSPORTATION
CIRCULATION
ELEMENT

DRAFT

TRANSPORTATION/CIRCULATION ELEMENT¹

I. INTRODUCTION

A. PURPOSE

Circulation is the process whereby people and commodities move within and through the planning area. The circulation system is the interrelation of transportation modes (the various methods by which people, goods, and utilities are moved) and transportation networks (routes which serve the circulation needs of the area). Since Palm Desert is one entity within a larger region (the Coachella Valley), the circulation system must accomodate inter-and intra-city movement in a safe, orderly, economical, and convenient manner. The purpose of this element is to develop an overall circulation network that should meet current and future transportation needs of all who live in or traverse Palm Desert.

B. SCOPE AND NATURE

This element serves several purposes. First, it identifies and analyzes circulation needs and issues. Second, it is a statement of goals, objectives, and policies based on the total circulation needs of the community. Third, a planned circulation system for the entire planning

¹ Government Code Section 65302(b) requires every city to prepare a "circulation element consisting of the general location and extent of existing and proposed major thoroughfares, transportation routes, terminals, and other local public utilities and facilities, all correlated with the land use element of the general plan."

area is presented. Fourth, standards and criteria for the location, design, operation, and levels of service of various circulation facilities are established. Fifth, it describes the interrelationships among the various transportation modes.

C. RELATIONSHIPS TO OTHER ELEMENTS

The Transportation/Circulation Element is related to other elements (particularly Land Use) of the General Plan. Circulation facilities are designed around the Plan's pattern of land use. The type and design of the circulation system is determined by the type and density of surrounding land uses as well as intra-city access patterns served.

The element is also related to scenic highways, as is fully discussed in the Urban Design/Scenic Highway Element. As described in the Noise Element, the circulation system is one of the major components of urban noise. The circulation system has a direct impact on natural resources, particularly air quality. Factors of safety or seismic safety may affect the location and design of circulation facilities both in terms of structural safety and the need for evacuation and emergency routes. Access by means of the circulation system is a significant factor in the Housing Element.

This element is also related to the social/economic development of the City. Socially, the circulation system is a primary determinant of the pattern of human settlement. It has a major impact on the areas and activities which it serves, on community cohesion, and on the quality of life. Economic activities normally require circulation

systems for the movement of materials, products, customers, and employees. Thus, the viability of the community's economy is affected by the circulation system.

D. DIVISION OF ELEMENT

Excluding this introductory section, the element is divided into five sections, as described below:

- Goals and Objectives: Represents the ends the City will strive for.
- Issues/Problems/Opportunities: The purpose of this section is to identify relevant issues/problems that are barriers to achieving goals/objectives and to identify opportunities for mitigation.
- Analysis of Current Situations: Examines the current circulation and transportation systems.
- Transportation/Circulation Plan: Proposes a plan for autos, bikes and other modes; design standards are also delineated.
- Implementation Policies: This section describes the means in which to achieve the ends (goals and objectives).

II. GOALS AND OBJECTIVES

A. GOALS

- Develop a safe, efficient, balanced, multi-modal transportation system designed to provide for the movement of people, goods, and services meeting the existing and future needs of Palm Desert.
- Minimize the potentially adverse environmental effects of transportation such as noise and air pollution in the urban setting.
- Utilize circulation systems as a positive element of community design.

B. OBJECTIVES

- Develop and maintain a circulation network that provides efficient regional access, inter-city access, and intra-city access via appropriate types of roads.
- Develop a series of bicycle, hiking, and pedestrian trails and areas that will offer an alternative to the automobile along selected throughout the city.
- Utilize transportation elements, particularly bicycle and hiking trails, as a means of providing recreational and educational experiences by linking up with the various parks and public facilities in the planning area.
- Explore potentials for implementations of supplementary intra-city public transit systems including bus shuttle for the commercial area.
- Continue to cooperate with adjacent jurisdictions, the Coachella Valley Association of Governments and SunLine Transit to improve the valley-wide public transit system.

III. ISSUES/PROBLEMS/OPPORTUNITIES

A. PURPOSE

This section identifies the relevant issues and problems that serve as obstacles to the achievement of the aforementioned goals and objectives and identifies opportunities for mitigation. There are five broad categories of issues/problems/opportunities discussed in this section; they are land use, access and mobility, air quality, energy, allocation of resources, and institutional constraints.

B. LAND USE

The arrangement of land uses is one factor influencing how much travel there will be and how it will be made. As in the case of most cities, the circulation system in Palm Desert has been determined by the arrangement of land uses. Abutting land uses will continue to be a major consideration in the type and design of the circulation system. In the future development and/or improvement of the system, two other factors will also be considered. First, major activity centers, for example, the proposed Palm Desert Town Center, will greatly influence the design capacity of nearby roadways. A second additional determinant is the inter- and intra-city travel needs of those who traverse Palm Desert. This final determinant will be discussed under the access/mobility section.

Land use also influences the mode of transportation to be utilized. The further one must travel to acquire needed goods and services, the greater the dependence on the automobile. This is especially true for many Palm Desert residents since goods and services are primarily centralized in the core commercial area, away from most residential areas.

To improve this situation, commercial sites have been designated throughout the North Sphere to serve the anticipated future population. (See Land Use and Population/Economic Elements for further discussion.) This dispersal of goods and services could help balance the traffic flow throughout the Planning Area.

The above indicates the necessity of assuring that the land use and transportation plans are harmonious. This requires agreement on the broad goals of the plans and on the timing and action of implementing individual projects that make up the plans.

C. ACCESS AND MOBILITY

Transportation systems, in order to be successful, should provide improved access to economic opportunities and improved individual mobility to goods and services for users. The Coachella Valley is faced with a major access/mobility problem. Highway 111, a major route used to traverse the entire Valley, operates with high volumes of average daily traffic.² Also, increased development along Highway 111 has caused the need for additional highway access (i.e., signalization) control. These two factors have greatly diminished the efficiency of Highway 111.

The situation was studied recently by a Valley-wide Highway 111 Bypass Committee. The Committee, consisting largely of city officials from

² The Highway 111 Bypass Committee reported peak average daily traffic at 19,600 in 1976 (p.6 of final report). The Initial Study of Environmental Impact for the Palm Desert Regional Shopping Center reported an average daily traffic of between 26,400 to 28,900 trips for Highway 111.

desert communities, suggested that major east/west routes, such as Country Club Drive, Avenue 44, Avenue 42, 36th Avenue, and Frank Sinatra Drive in the Palm Desert Planning Area, be developed as alternates to Highway 111. Since only Country Club Drive and 44th Avenue extend to Indio, the Committee recommended that other east/west routes link up with Kansas Avenue, which will run parallel to Interstate 10. As development advances northward, Interstate 10 will also serve as a major link between desert communities. It is assumed that the near term peak use congestion on Highway 111 will decrease as the bypass system is developed and traffic (local and regional) is redirected to other major streets, but because of destination points and development along the Highway, it will reach its design capacity.

Another major mobility/access issue facing the entire Valley is the provision of public transportation. Due to the energy situation and the increased number of permanent residents, the importance of public transportation will continue to increase. SunLine, the public transportation company in the Valley, has shown significant increases in ridership in recent years. The continued financial support of SunLine is an essential priority, in this age of frugality and government spending reduction, if public transportation is to be available as an alternative to the automobile.

Palm Desert is faced with four special access/mobility issues. The first concern is for the circulation pattern to be established in the North Sphere Area, which is where the future growth of Palm Desert

will occur. The design capacity of the future road system in this area must meet not only the access/mobility needs of potential residents but also inter-city needs. Major north/south and east/west roadways will, for the most part, be extensions of existing roadways and will be major features of the Highway 111 bypass system previously described. All road extensions and the construction of new roads should meet the projected peak traffic load and should be completed in a manner that is most cost efficient. To accomplish this, new construction should be contiguous to existing developments.

A second issue involves access into the Palm Valley Stormwater Channel Area. As described in other elements and the Palm Valley Stormwater Channel Area Specific Plan, access will be provided by two at-grade crossings, one bridge crossing, and a collector street system. A full description of the proposed system appears in the next section.

Another issue is adequate pathways for bicyclists, pedestrians, and other users. As indicated in the Urban Design/Scenic Highway Element, many different users utilize the same travel way. In a few areas, separate pathways are necessary for the safety of the users. The City should guarantee that adequate pathways are developed as new development occurs; pathway design will be discussed in a later section. In developed areas, and depending upon the type of pathway needed, the City should either be the sponsor in providing adequate pathways or encourage the formation of assessment districts for this purpose.

Finally, the smooth and safe flow of vehicles is essential. As de-

scribed in the Urban Design/Scenic Highway Element, certain portions of major roadways (e.g., Cook Street) have the potential for numerous ingress/egress points; safety problems could be anticipated. Means to limit the number of ingress/egress points include lot consolidation and/or access consolidation.

D. AIR QUALITY

Good air quality is a major reason people chose to reside in or visit the Coachella Valley. As development continues, air quality is anticipated to deteriorate. Oxidants and particulate matters are the major air contaminants in the Palm Springs/Indio area and are transported from the Los Angeles air basin. The internal combustion engine is a secondary source of oxidants and one of many sources of particulate matter. The pollutants, over a long period of time in severe conditions, may cause adverse effects to the respiratory tract, lung function, and to vegetation.

Although Federal and State statutes have provided local government with little authority in controlling air pollution, the City has adopted policies that would encourage other transportation modes other than the automobile and policies which act to reduce the number and distance of automobile trips. These policies include implementation of the proposed bike network, dispersal of commercial areas in the North Sphere Area, and cooperating with SunLine in providing public transportation in the City. Also, the opportunity exists for a car-pooling program, operated by residential development homeowner's association, in both existing residential developments and planned within future developments.

E. ENERGY

Public officials and the media indicate that the supply of low cost United States oil is running out. Although no one knows how much oil is left, the supply is finite. The short-term effects of the energy situation include the move towards smaller, more fuel efficient cars and the utilization of other transportation modes. Since this is a relatively recent problem, the long-term effects are not known at this time, although government and the energy industries are working to solve this problem. The opportunity exists to provide for and/or support alternative transportation modes (e.g., bikes) and other programs (e.g., car-pooling) through land use and other policies.

F. ALLOCATION OF RESOURCES

Another constraint to achieving stated goals and objectives is the limited amount of funds available for transportation and related improvements. In general, California voters, the overall economic situation, and the scarcity of federal dollars have hindered the ability of local government to guarantee the availability of funds for public improvements. The effect of this constraint is that available dollars are not only scarce, but also must be allocated among a variety of public improvements. To address the situation, the City established a Capital Improvement Budget, which prioritizes and allocates funds for needed capital improvements over a five year period.

G. INSTITUTIONAL

Palm Desert is not the only agency involved with transportation planning

in the area. Riverside County, SunLine, the State, SCAG, and other communities are all responsible for transportation planning. Since many agencies are involved, there is a need for continued cooperation and coordination, through CVAG, of planning activities between Palm Desert and other entities to assure that existing facilities are not overloaded, duplication is avoided and all future areas of development are served without difficulty.

IV. ANALYSIS OF CURRENT CONDITIONS

A. INTRODUCTION

The function of this element is to plan for a transportation system that is convenient, economical, and safe from a point of origin to a point of destination. This implies that the existing or potential systems must assist the resident or visitor in traveling within or through Palm Desert with the greatest amount of ease. Three general types of facilities currently serve the planning area:

- Intra-Regional Systems: Transportation networks that connect Palm Desert to other portions of the region such as Los Angeles.
- Valley-wide Systems: Transportation systems that link the desert communities.
- Local Systems: Transportation networks that exist in the planning area.

This section analyzes current conditions of the aforementioned transportation networks.

B. INTRA-REGIONAL SYSTEMS

Intra-regional systems include air, railroad, and highway/freeway transportation networks; a description of each follows.

1. Air: Three airports serve the Coachella Valley--Palm Springs Municipal, Thermal, and Bermuda Dunes. Palm Springs Municipal, the largest of the three, provides connections to many key points throughout California and the continental United States; seven commercial airlines serve the desert area. Air freight is also handled at the airport.

Thermal Airport operates as a general aviation facility according to the Riverside County Aeronautical Master Plan (RIVCAMP). Should unforeseen demand or other problems strain the capacity of Palm Springs Municipal, Thermal Airport could handle some of the passenger and most of the air freight overflow.

Bermuda Dunes Airport provides for personal business, flying instructions, and recreational flying.

2. Railroad: The planning area is not directly serviced by rail passenger facilities. However, the Amtrak system runs along the Southern Pacific Railroad tracks adjacent to Interstate 10 and makes two scheduled weekly passenger stops in Indio. The Southern Pacific Railroad is an active carrier of freight.
3. Highways/Freeways: Three highways/freeways connect Palm Desert with other parts of the region. Interstate 10 is the only freeway in the desert and connects the Coachella Valley with the Los Angeles metropolitan area to the west and the rest of the sunbelt (to Florida) to the east. The closest interchange is along Ramon Road near Bob Hope Drive.

Highway 74 is the major state highway linking Palm Desert with the San Diego area and the San Bernardino National Forest communities of Hemet, San Jacinto, and Idyllwild. The State Department of Transportation is the agency responsible for the maintenance of Highway 74.

Finally, Highway 111 connects Palm Desert and Coachella Valley with the Imperial Valley Area and, connecting with Highway 86, Mexico. The Highway is also maintained by the State Department of Transportation.

4. Other Facilities: Private bus companies, door-to-door limousine service and other minor systems serve as linkages to other areas, primarily Los Angeles and/or Phoenix. Connections to other regions could be made at these aforementioned points.

C. VALLEY WIDE SYSTEMS

Valley-wide systems include transportation networks which link Palm Desert with other desert communities. Major systems in this category include surface roads and public transportation; minor systems include bike routes.

1. Surface Road System: Highway 111, the major surface road, traverses the Valley from its junction with Interstate 10 to the Salton Sea. The Highway, which is maintained by Caltrans, bisects the City and serves as the major arterial street in Palm Desert. The access/mobility section already discussed Highway 111.

As development advances northward, Interstate 10 will serve a greater role as a regional link. The access/mobility section described how major east/west and north/south roads in the planning area will serve as regional links.

2. Public Transportation: SunLine Transit Agency is the agency providing public transportation to Valley residents. The Agency serves every Valley city on eleven fixed routes and five demand-responsive systems.³

³Over 626,000 passengers used the service during the 1979 fiscal year, according to SunLine. (Shorrange Transit Plan, February 1980, p.4)

Various lines make regular stops in Palm Desert, allowing City residents to reach almost any desired destination in the Valley.

3. Other: A limited bike route system and other private transportation systems such as taxi or bus (e.g., Greyhound) assist residents in reaching a desired destination in the Valley. At this time, no regional or local plans have been prepared to integrate these facilities as part of a comprehensive regional transportation plan.

D. LOCAL SYSTEMS

Local systems are networks that primarily provide for the mobility/access of residents. These networks and modes, that is, the local street pattern, SunLine, and bike/pedestrian routes connect the various areas of Palm Desert together. Each transportation network or mode plays an important role in the overall planning of the community. As described in the Urban Design/Scenic Highway Element, each provides a sense of order to the City and in tying the various districts together. Current conditions of each transportation mode is described below.

1. Local Surface Road: There are a variety of street types serving different levels of traffic. The existing street pattern was developed either under Riverside County guidelines prior to incorporation or under the 1975 General Plan guidelines. Under these plans, four types of streets were developed: collector, secondary highway, major highway, and arterial. Collector streets serve a small number of motorists while arterial streets serve a large number of motorists.

The City is active in improving the existing surface road system.

The Capital Improvement Program delineates the proposed physical improvements including signalization, street widening, and re-surfacing.

2. Bike System: In response to concerns addressed in The 1975 General Plan, a bike trail system was developed. The City has moved to implement the bike system. First, in developed areas, the construction of bike paths is a part of the Capital Improvement Program. Second, in developing areas, developers are required to construct bike paths, if their projects abut the proposed route, as a condition of approval. Finally, the Army Corps of Engineers proposed improvements to the Palm Valley Stormwater Channel includes a bike/hike trail.
3. Public Transportation: In July, 1979, SunLine replaced the fixed route system with a tel-a-ride system within the City. The fixed route system was replaced due to low ridership.⁴
4. Parking: The provision of adequate off-street parking in all areas--especially the commercial area--is a concern of the City. Two large public parking lots, existing between Highway 111 and El Paseo, are inadequate in size, according to the Redevelopment Program (Exhibit B). The Redevelopment Program indicates potential sites in the commercial district where additional off-street lots are available. There is no timetable as to when these other lots will be constructed.

⁴According to the Shorrange Transit Plan, p.69, capacity was approximately 14%.

5. Other: Besides the aforementioned systems, other transportation modes include pedestrian pathways, golf carts and taxi service. Pedestrian pathways and golf carts are practical for short range traveling. In many cases, the bike paths are, or could be, used for pedestrians and golf carts.

V. CIRCULATION/TRANSPORTATION PLAN

A. INTRODUCTION

This section discusses the Circulation/Transportation Plan for Palm Desert. The most important ingredient of the plan is the existing and proposed surface road system. From this surface road system, different modes (automobiles, bikes, buses, golf carts, walking) could be utilized.

The two major circulation systems of the plan are discussed below. The first describes the circulation network and the classification of road types. The second describes the bike route/path system. With these two systems, residents and visitors could use any transportation mode to travel in Palm Desert.

B. CIRCULATION NETWORK

The primary purpose of the circulation network is the safe and efficient movement of motor vehicles (e.g., cars and trucks) from a point of origin to a point of destination. This network also serves as the basis for the development of other transportation modes discussed throughout this element. A traveler considers four factors in selecting a particular mode: the distance to be traveled, route, travel time, and convenience. For other modes to be available as alternatives to the automobile, traveling distance and route selection should be similar.

Six types of road classification are developed for the circulation network. Road classifications are based on certain assumptions made concerning each street. The assumptions, which were considered, include:

- Expected peak traffic load of existing and potential roads;
- Special designations, such as scenic routes;
- Existing and potential developments; and
- Potential physical improvements, such as road widening.

focus of the plan since future growth will occur in this region. As shown on the map, Monterey Avenue and Cook Street will be connected to Interstate 10 as arterial streets. Portola Avenue, Frank Sinatra Drive and 36th Avenue will be developed as major thoroughfares. The circulation network will be defined further as development occurs.

Figure 1 depicts the guidelines to be used in future road construction. The scenic easement addition on all cross-sections except for collector streets represents a major departure from the 1975 General Plan. This scenic easement right of way is to provide for a pedestrian/bike path system separated from automobile traffic and to provide for the enhancement of City edges and scenic corridors through landscaping, as recommended in the Urban Design/Scenic Highway Element.

Additional guidelines relating to the internal circulation design of residential and commercial developments have been developed; they are as follows.

Internal Design Guidelines for Residential Development

1. Long straight roadway stretches should be avoided to discourage excessive speeds and thereby reduce safety hazards.
2. Adjacent intersections along the same street, but on opposite sides, should be offset a minimum of 150 feet centerline to centerline on collector and local streets.
3. Street grades should not exceed ten percent.
4. Streets should intersect at as near to a right angle as possible, and at not more than a 15 degree skew.
5. Streets should intersect others on the outside rather than the inside of a horizontal curve.
6. Streets should not intersect on a crest vertical curve.

B. CIRCULATION NETWORK

A description of each road classification is as follows:

- Collector: A street, usually of two lanes, but occasionally four lanes, designed to provide access to and from one area of the community to an arterial or major thoroughfare. It is intended to provide a means for movement from within a living, working, or shopping area to the periphery of that area.
- Secondary Roadway: Collects and distributes traffic from major arterials to local streets or to traffic destinations. It also serves secondary traffic generators, such as small business centers, schools, and major parks.
- Scenic Secondary Roadway: Same as secondary roadway, but with a raised landscaped center median as on El Paseo.
- Major Thoroughfare: A high capacity street of four or more lanes with a landscaped median (if appropriate), a limited number of cross streets, stacking and turning lanes and parking, intended to move people through and within the community.
- Arterial Street: A minimum of four lane streets, designed to move people from one part of the community to another, containing few cross streets.
- Freeway: A high capacity, multi-laned, divided highway of limited access with grade separated crossings, intended to move people through the community or region.

Using the aforementioned assumptions and classifications as guidelines, a circulation network was developed for Palm Desert. Map 1 graphically describes the proposed network. The proposed circulation pattern for the North Sphere Area (the area north of Country Club Drive) is the major

7. Schools should be located on low volume local streets.

Internal Design Guidelines for Commercial Development

1. For vehicles entering a driveway, there should be adequate storage between the street and the first parking stall or aisle juncture to store incoming cars and not cause cars to queue onto the street.
2. Pedestrian walkways should be provided to minimize pedestrian/auto conflicts. The conflicts seldom lead to accidents because of the low speeds; however, it is clearly desirable to separate autos and pedestrians whenever possible.
3. The traffic aisles which interconnect parcels are desirable; however, the aisles would have sufficient turns so that "through street" effects do not exist. Long stretches of straight travelway invite higher speeds.
4. Circulation within the parking area should allow relatively free flow of vehicular traffic with no constrictions.
5. The aisles should be placed in such a way that it is easy to reach any destination within the center after entering any driveway.

C. BIKE ROUTE SYSTEM

The proposed bike route system is shown on Map 2. Portions of the plan have already been implemented. The proposed system was coordinated with policies addressed in the Conservation/Open Space/Recreation Element and the Urban Design/Scenic Highway Element.

The bike route system connects points of educational, cultural, civic, commercial and recreational interests with residential areas. Three classes of bike paths are developed, as described below:

- Class I: Bikeway is physically separated from vehicular traffic by a physical barrier. Path is shared by pedestrians.
- Class II: Unprotected bikeway is defined by a stripe on the roadway.
- Class III: Unprotected bikeway sharing the same roadway with vehicular traffic.

The bike route system was developed with certain assumptions, including:

- Cyclists seek the shortest route between origin and destination,
- Desirable areas for bicycles are the major streets, and
- Bicyclists should be free from conflict the automobile as much as possible.

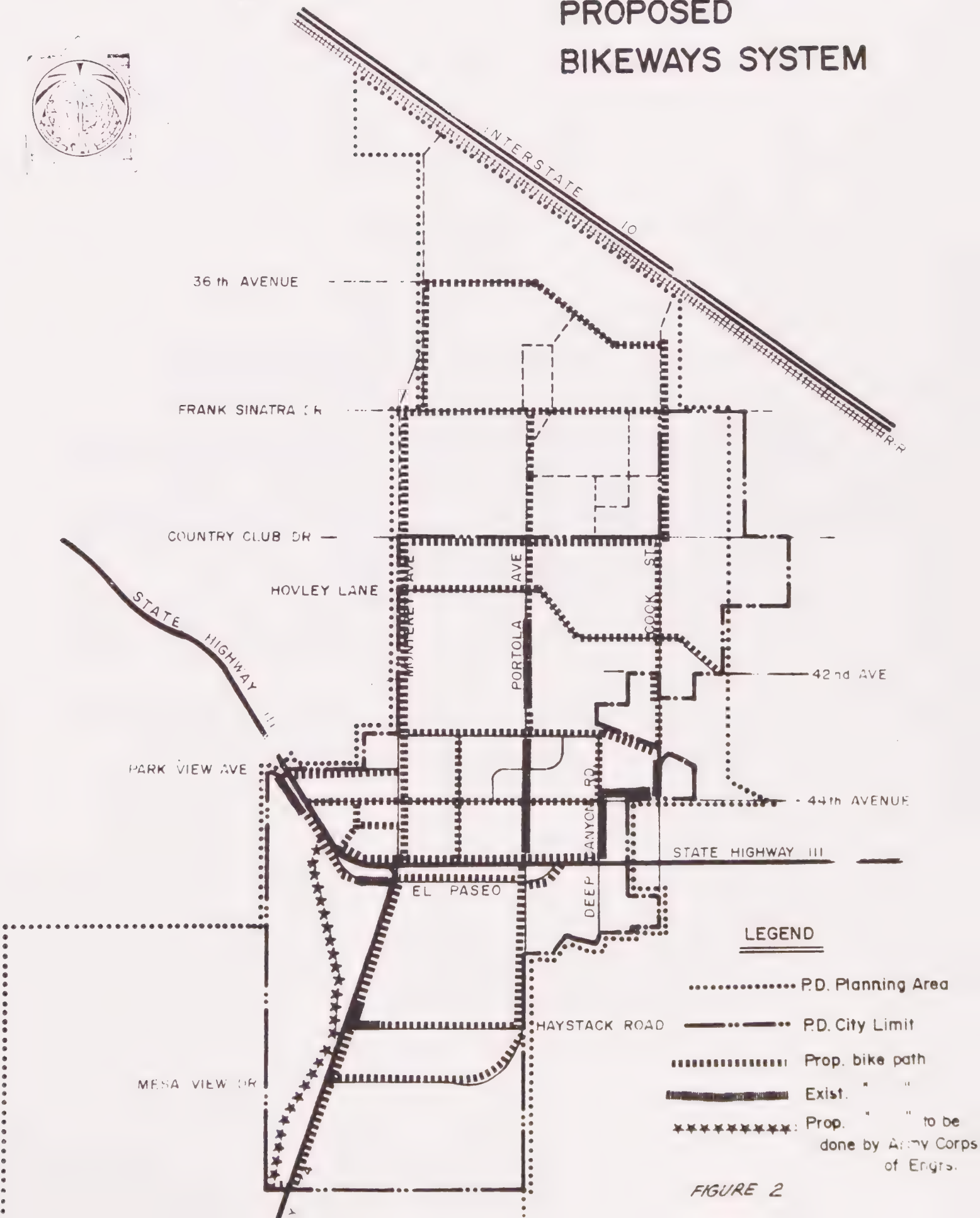
Map 2 indicates the bike path on major roads only. Any hard surface road serves as a potential bike trail. Those streets not indicated on the Map should be considered as Class III bikeways. Bikeways will be developed as either Class I bike paths or Class II bike lanes. The appropriate designation depends on the existing situation. For example, most of the bikeways that will be developed under the Capital Improvement Program will be Class II bike lanes because existing land uses preclude bike paths. Likewise, in areas development does not currently exist Class I bike paths will be constructed.

In order to maximize the safety of the bicyclist and reduced potential conflict with automobiles, certain standards should be considered. The following are recommended standards in various areas. While these standards are general, more precise standards will be developed as part of the Urban Design Manual (see Urban Design/Scenic Highway Element).

- Width: Bike paths and bike lanes should be wide enough to provide for the safety of the user.
- Surfacing: Bike paths should be constructed with a hard, all-weather, and pervious surface.
- Signing and Marking: Signing should be done for the safety and usage by the bicyclist and/or pedestrian.



PROPOSED BIKEWAYS SYSTEM



LEGEND

- P.D. Planning Area
- . - . P.D. City Limit
- Prop. bike path
- Exist. " "
- ***** Prop. " " to be done by Army Corps of Engrs.

FIGURE 2

VI. IMPLEMENTATION POLICIES

The City shall:

- work with appropriate County, State, and Federal agencies and programs to refine and implement the circulation network illustrated on Map 1.
- relate circulation planning to the classifications of roads described in this element.
- utilize the right-of-way standards in Figure 1 as General Planning Guidelines.
- implement the bike system illustrated on Map 2.
- require integration of neighborhood level bicycle/pedestrian/golf cart systems with the city-wide structure through site plan review process.
- require the construction of bus loading and unloading areas, as a requirement of street development, as appropriate.
- consider the creation of a shuttle bus system for the commercial area as discussed in the Population/Economics Element.
- continue the City's share of financial support to SunLine Transit Agency.
- continue to work with adjacent communities and CVAG in defining alternate routes to Highway 111.
- continue to upgrade circulation network by making the necessary physical improvements, to be implemented by the Capital Improvement Program.
- encourage lot consolidation to reduce the number of ingress and egress points along major arterials.
- require, in the review of subdivision maps, the provision for bike routes to serve the area and to connect with the city-wide system.
- require new commercial developments to provide bicycle parking areas where bike route access is provided.

III-C

URBAN DESIGN
SCENIC HIGHWAY
ELEMENT

I. INTRODUCTION

The image of Palm Desert is of a tree-covered oasis dominated by desert and surrounding hillsides, with the majority of development contained on an alluvial fan at a low to medium scale. An important overall objective of the General Plan is to enhance and maintain this image and to enact policies and regulations that would continue a high standard of amenity in future developments. This element fulfills this objective and serves as the prime aesthetic feature in the General Plan.

A. Intent and Purpose

The intent of this element is to describe present and projected design activity in Palm Desert. The element should strengthen the role urban design presently plays in the planning process.

This element serves as a general policy statement that:

1. fulfills the requirements of the State Planning Law;
2. defines the components of the aesthetic character of the community;
3. aids in the maintenance of the City as an attractive place to work, play, and live;
4. establishes policies for scenic amenities which provide guidance for future development of all streets and highways;
5. identifies and evaluates design issues, problems, and opportunities throughout the planning area;
6. establishes a local scenic highway/corridor system;
7. identifies implementation measures.

¹

Government Code, Section 65302(h) requires a scenic highway element in recognition of the need for the development, establishment and protection of scenic highways.

B. Relationship to Other Elements

The various elements of the General Plan are all, to some extent, related and interdependent, since together they provide the policy framework to direct development needed to serve people and their activities within a given political jurisdiction and its area of influence.² This element relates directly to the open space, land use, and circulation elements and indirectly to the remaining elements. By definition, the land use pattern is a major factor in determining the physical form of Palm Desert. In addition, the scenic highway/corridor system's strongest relationship is with the open space element inasmuch as the system, by design, will traverse significant natural and urban open space area.

There is also an extremely strong and positive relationship between this element and the planning process. The element serves as an official guide to the City Council, the Planning Commission, the Design Review Board, various City departments, other governmental agencies, developers, and interested citizens to the identification (existing and potential) and the preservation of scenic amenities and design characteristics with the planning area.

C. Methodology

This element integrates work previously completed by the City, such as the 1975 General Plan, the College of the Desert and the Palm Valley Stormwater Channel Specific Plans, the Central Redevelopment Area Plan and Design Criteria. Data was also collected from field surveys by the planning division.

D. Division of the Element

This element is divided into five sections:

- Goals and Objectives: represents the ends to be achieved by implementation policies and programs.
- Urban Design in Palm Desert: represents a brief, general definition of urban design as it relates to Palm Desert and describes present design activities currently undertaken by the City.
- Spatial Organization of Palm Desert: delineates various aspects or components that make up the City.
- Urban Design Field Surveys: discusses the findings of surveys conducted to describe urban design issues and opportunities to fulfill the goals and objectives of this element.
- Implementation Policies and Programs: discusses the policies and programs that could be adopted to achieve the goals and objectives of this element.

II. GOALS AND OBJECTIVES

Goals

- Enhance the image of Palm Desert as a well maintained, low intensity suburban desert community dominated by the natural qualities of the surrounding hillsides.
- Preserve elements of the desert and hillside environments to balance and complement the urban portions of Palm Desert.
- Maintain the physical environment (both natural and man-made) by the preservation, control and development of visual aspects of the environment.
- Preserve and enhance the visual amenities of local and regional highway travel.
- Enhance land use pattern by taking optimum advantage of the City's natural assets including views, hillsides and the desert floor.

Objectives

- Develop a system of City edges, entry points, focal areas, and landmarks that will serve to distinguish Palm Desert from the surrounding cove communities.
- Utilize building masses, architecture, color, facade treatment, etc., to create unity and identity in the various components of the City (residential areas, civic area, commercial areas, etc.).
- Strengthen and refine the Design Review process to provide a more definitive mechanism and guideline for evaluation of development proposals where qualified aesthetic judgement is required.
- Develop a landscape system for all major streets and intersections.
- Develop a system of pedestrian and bike systems.
- Refine existing guidelines and ordinances to maintain the visual quality of the hillsides.
- Encourage visual diversity, differentiation, stimulation, and interest in design of various components of the City while achieving internal harmony.
- Designate scenic corridors where components of the system relate to significant aspects of the man-made, or natural environment.
- Establish policies and standards to provide and protect an aesthetic environment along city, county, and state streets and highways and scenic areas such as flood channel right-of-way.
- Consider the remaining undeveloped land as a scarce resource which requires careful integration into the community as a positive addition to the visual environment.

form which:

- creates logical and efficient patterns of land use activities;
- provides appropriate levels of access to varying types and intensities of land uses;
- preserves and enhances natural features such as the surrounding hillsides;
- responds to the human need for orientation by means of a structural environment.
- responds to the realities of economic relationships as defined in the marketplace and the needs of public institutions as defined by the public sector.

Palm Desert has been active in urban design activities since the City incorporated in November, 1973. The City Council created the Design Review Board whose duties are to "review and approve or cause to be modified all proposed developments requiring qualified aesthetic and architectural judgement to the end that the general appearance of all proposed developments shall preserve or enhance the physical environment and character of the City". (City Council Ordinance No. 210). To this end the City Council has adopted more specific development standards and evaluation criteria.

The Redevelopment Agency has also developed general standards relative to development within the boundaries of the agency. Like the Design Review Board, the general development standards of the Redevelopment Agency include terrain control, site planning, access and circulation, landscaping, utility and equipment, vehicle parking and architectural standards.

Other design activities include various sections of the zoning ordinance and subdivision regulations, the sign ordinance and specific plans such as the College of the Desert and Palm Valley Stormwater Channel area

III.

URBAN DESIGN IN PALM DESERT

In general, Urban Design is the development of an efficient, convenient, and aesthetically pleasing three dimensional City form. Urban design is addressed on three different levels in Palm Desert:

- the City and entire planning area;
- each particular district within the City or planning area, and
- individual projects within each district.

As can be easily discerned, one level builds upon the next level. Accordingly, the standards and the actions at the lowest level (i.e., individual projects) could determine the aesthetic quality of the community at the higher levels. The objective of urban design is to encourage maximum freedom, creativity and innovation in the architecture, landscape design, and graphics of each individual project within the framework of constraints imposed by this element, and decisions by the City Council, the Planning Commission, and the Design Review Board.

There is also a psychological aspect of urban design on the City level. Urban design in Palm Desert takes into account that the resident and/or visitor is exposed to the entire urban environment. The ease with which visitors and residents understand the spatial organization and discover the important features of Palm Desert is essential for the psychological wellbeing of residents and visitors alike. The enhancement of the legibility and the comprehensibility of urban form is affected by the general pattern of circulation, visibility of major destinations, the character and visual appearance of buildings, consistency and distinctiveness of streets and character of landscaping.

At the City level, urban design is the development of an overall City

form which:

- creates logical and efficient patterns of land use activities;
- provides appropriate levels of access to varying types and intensities of land uses;
- preserves and enhances natural features such as the surrounding hillsides;
- responds to the realities of economic relationships as defined in the marketplace and the needs of public institutions as defined by the public sector.

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Other design activities include various sections of the zoning ordinances and subdivision regulations, the sign ordinance and specific plans such as the College of the Desert and Palm Valley Stormwater Channel area.

Although the City has accomplished much in this area since incorporation, the opportunity exists for strengthening and refining present activities. As will be delineated in the next few sections, there are areas where the City can take positive and concrete action to further the goals and the objectives of this element.

IV. SPATIAL ORGANIZATION OF PALM DESERT

A. Introduction

The design structure of Palm Desert consists of various elements including districts, entry points, landmarks, edges, focal points, linkages, and scenic routes. This section describes each of the individual elements and their importance to urban design in Palm Desert.

B. Importance of Considering Spatial Organization

The spatial organization of Palm Desert is important for several reasons. First, it provides for the uniqueness of Palm Desert when compared to other cove communities. It provides for identity and orientation and defines the community. This is important since Palm Desert is one entity within the broader Coachella Valley.

Second, the spatial organization of the community is the backdrop and the main structuring element in which development has and will occur.

Finally, it serves as the basis in which urban design issues are discussed. It serves as a basis in which to identify issues, to write policies, and to create programs.

Figure 1 illustrates the spatial organization of the City.

C. Spatial Organization

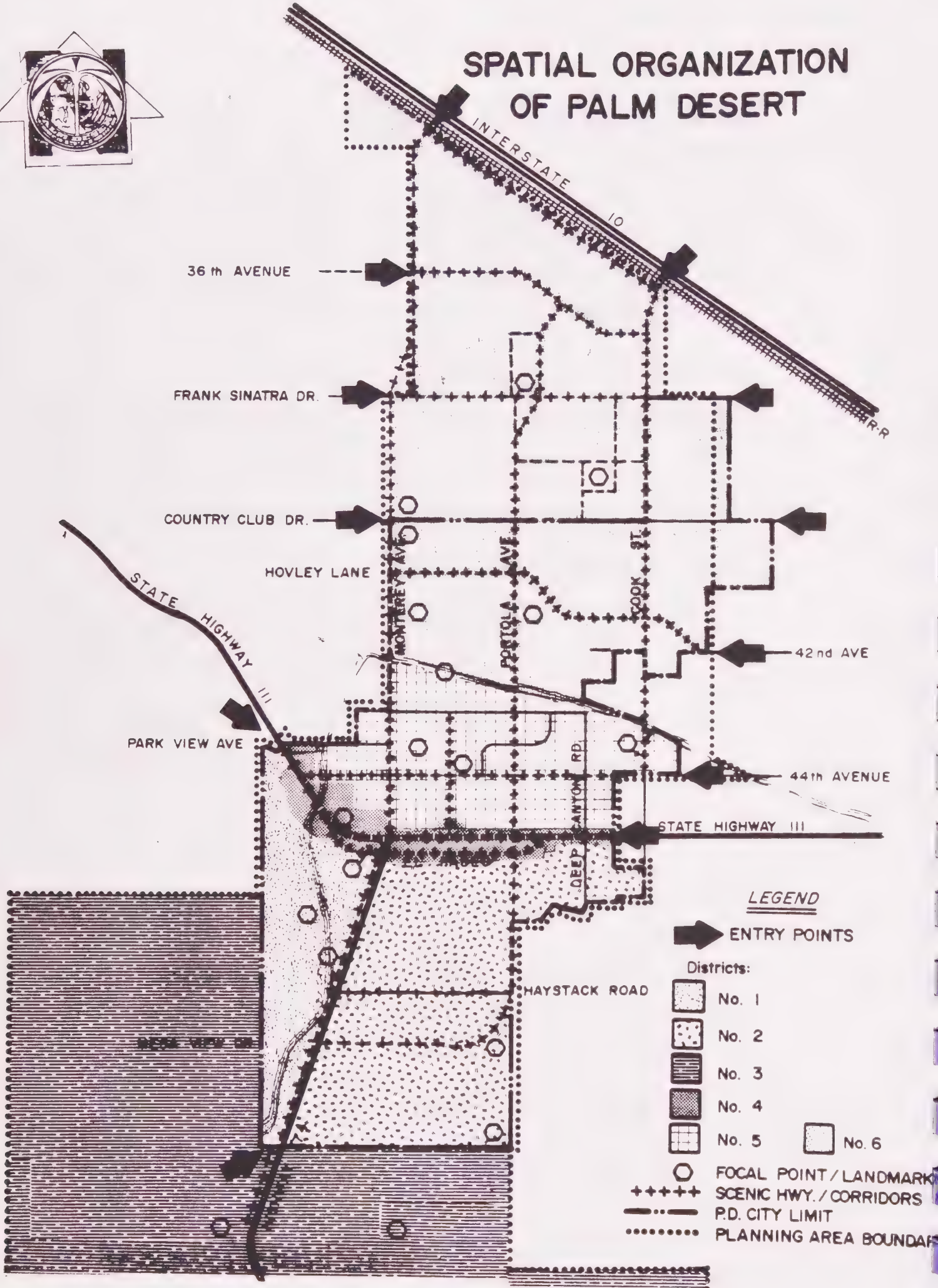
1. Districts

Due to natural features, man-made features, or local decisions, the planning area is conceived of having six distinct districts, as described below:

- a. area south of the commercial district to the City limits and between Highway 74 and Portola Avenue:
- b. area west of Highway 74 and south of El Paseo, commonly known as Palm Valley Stormwater Channel area and includes Cahuilla Hills;



SPATIAL ORGANIZATION OF PALM DESERT



- c. Highway 111/El Paseo commercial area;
- d. area north of the commercial district to the Whitewater Storm Channel;
- e. north of the Whitewater to Interstate 10; and
- f. Sphere of Influence south of the City encompassing the California State Game Refuge and Sheep Mountain.

Each district has a physical orientation that differs from other districts. Natural and man-made features offer the opportunity to direct urban design to enhance these features.

2. Entry points

Entry points consist of those areas which mark the entrance into the City. The planning area has a number of entry points from adjacent jurisdictions or areas. These include:

- a. proposed Interstate 10 interchanges at Monterey Avenue and Cook Street;
- b. the transition areas from neighboring communities of Rancho Mirage and Indian Wells along major circulation corridors; and
- c. the transition from the mountains to the desert floor.

3. Edges

Edges correspond to the established political boundaries between communities. Edges are usually linear paths and streets and are not usually visually evident. The edges in the planning area consist of those streets and roads that determine the boundaries between Palm Desert and the neighboring communities of Rancho Mirage and Indian Wells or the County of Riverside.

As the City develops in the future, edges will either expand or change. A northern segment of Monterey Avenue, will continue to be the edge between Palm Desert and Rancho Mirage, while Interstate 10 will eventually be the "edge" between Palm Desert and the County.

4. Focal Points

Focal points consist of strategic visual elements in a city which provides identity and orientation either to the resident or to the visitor. They are activity areas and could relate to either major institutions or natural features.

Existing and/or planned focal points in the planning area include:

- College of the Desert
- Proposed Civic Center
- Certain elements of commercial areas such as Palms-to-Pines Shopping Center and the proposed Palm Desert Town Center
- Proposed commercial centers in the North Sphere Area
- Living Desert Reserve
- Boyd Research Center/State Game Refuge
- Existing and proposed City parks
- Palm Valley Stormwater Channel
- Whitewater Storm Channel
- Major country clubs, for example, Ironwood and Monterey

5. Landmarks

Potential landmarks are often located at the focal points discussed above. These are areas where buildings of special height, size or architectural character would be appropriate to give a sense of orientation or direction, or they may consist of areas of an unusual natural character combined with a key position in the circulation system.

Key existing or potential landmark areas include:

- areas related to the approaches from Interstate 10;
- areas related to the approaches to the commercial area from Highway 111, Highway 74, San Pablo Avenue and Monterey Avenue;

- potential axial relationship between the commercial area, College of the Desert and the Civic Center; and
- area surrounding buildings of historical significance (as listed in the Conservation/Open Space/Recreation Element).

6. District Linkages

District linkages relate directly to the circulation and open space systems. They perform the function of joining the various districts together to give meaning to Palm Desert as a community.

Major district linkages include:

- Highway 111
- Monterey Avenue/Highway 74
- Portola Avenue
- Cook Street
- Hiking, flood control, open space, and bicycle networks

7. Scenic Highway/Corridor Designation

Scenic highway/corridors are designated to assist in the preservation and enhancement of the scenic resources of Palm Desert.

Local Scenic Corridors include: Highway 111/El Paseo Corridor, Monterey Avenue, San Pablo Avenue, Portola Avenue, Frank Sinatra Drive, Cook Street, Hovley Lane/42nd. Avenue, 44th. Avenue, and Haystack Road.

State/County Designated Routes in the planning area, include State Route 74 and Interstate 10.

V. URBAN DESIGN FIELD SURVEY

A. Introduction

Field surveys were conducted to identify design features that work for the City and, therefore, should be maintained and/or enhanced, and to identify areas of aesthetic and/or functional opportunities. The findings, as discussed in this section, set the foundation in which various programs and standards can be developed.

B. Findings

1. Existing City has developed largely as an unconsolidated grouping of individual projects rather than in relationships to any established structure. This has allowed for different architectural themes and, in some areas, abrupt changes. Also, large areas of land within the present corporate boundaries of the City remain undeveloped while present development continues at the urban fringes.
2. The City has developed into six distinct districts; their boundaries have already been described. In some cases land uses such as commercial versus residential determined the districts; in other districts the boundary or separation was caused by major roads (e.g., Highway /4) or by natural features (e.g., College of the Desert Area). The six districts are diverse in character and represent a challenge to unifying the community in terms of an overall city character.
3. Palm Desert is a single entity within a larger region. Each community has individual design philosophies and values which allows each community to develop in a unique way. This differentiation between communities can be accentuated through urban design activities, design review, and the planning process.
4. There is the opportunity to accentuate and enhance points of entry

into the City. Presently, highway signs indicate entrance into or exit from Palm Desert. The design of signs at points of entry could provide strong community identity to residents and visitors alike.

5. There is a need to enhance the focal points, activity areas, and landmarks within Palm Desert. These areas, together with existing and proposed park facilities and landmarks, provide major structuring elements to the City and could provide strong community identity and direction to overall design of the community.
6. The overall design image of Palm Desert is represented by the foreground and the background. The foreground includes existing landscaping, buildings and other elements that are on a human scale. The background is dominated by the surrounding hillsides. The opportunity exists to accentuate and enhance the overall design image of Palm Desert through landscaping, architectural standards, and other programs.
7. Large billboards located along Highway 111, and utility poles, located in a few residential areas, do nothing to enhance the design aesthetics of the commercial or residential areas.
8. On the project level, micro-climate becomes an important component of design. Poorly designed buildings, exteriors and lack of landscaping, can significantly increase adverse heat, glare and blowsand.
9. Sensitive landscaping can play a significant role in enhancing the aesthetic quality of Palm Desert. In general, the community has developed with the use of ornamental landscaping. Further opportunity exists for the City to landscape major scenic routes. Presently, little attention has been given to Highway 111 median development, and along other designated scenic routes.
10. Views could be classified into three categories:
 - (a) Vista, which is an intermediate to far view which is restricted

either side by natural or man-made elements;

- (b) wide angle, which is a view encompassing a considerable viewing angle; and
- (c) Panorama which is a view which provides the observer with a great sweep of the natural setting and/or man-made cityscape.

VI. IMPLEMENTATION

A. Introduction

Up to this point, Urban Design has been discussed in a general way. The purpose of this section is to discuss urban design problems and opportunities that prevail through analysis. The direction of this section is to create a document that would provide a design overview or statement for the community. It will serve as a guide to evaluate proposed public and private projects. It is intended to serve as a springboard from which a Design Manual is created.

Much of this element is concerned with public programs and procedures for achieving a better designed environment, such as street landscaping, better design of public buildings, and improved zoning procedures. As important to urban design- as all of these public procedures- is the understanding and support of good design by the private interests who actually are the developers of Palm Desert's housing, commercial and industrial facilities. The purpose of the proposed Design Manual will be to provide illustrations of good design principles that will help the City to obtain the better designed environment that is the ultimate objective of all land use and development design regulations. The Manual could also assist the City in evaluating projects on a design basis.

Whereas this element is general in nature, the proposed Design Manual will provide more precise standards in the implementation of this and other elements, particularly the Energy Element, and City zoning ordinance and subdivision Regulations.

B. Design Topics

This section will discuss the design needs, opportunities and techniques for various design topics including each district as described in the spatial organization section, scenic highway/corridors, bike path system and signs (informational, directional, traffic safety and on-premise).

Each design topic is discussed as follows:

- Definition: description of the areas of design concern.
- Existing Conditions: assessment of economic, social, and environmental conditions that presently exist in the area.
- Potential Conditions: assessment of economic, social, and environmental conditions that could exist based on the Land Use Element map and other elements of the General Plan.
- Design Features: inventory and assessment of both physical and natural environmental features or issues (e.g. mountains) and conditions found above;
- Design Needs/Opportunities: based on the above analysis, a determination of the present and future design needs and opportunities for the area; and,
- Techniques/Tools: assessment of various tools and techniques available to address or enhance the design needs/opportunities described above.

By virtue of their inter-relationship, the latter three points will be discussed simultaneously.

1. Districts:

- a. Palm Valley Stormwater Channel Area: this district is generally bounded by the Palms-to-Pines Highway on the east, the incorporated City limits on the west and south, and Painters Path on the north.

Existing Conditions: There are a mixture of man-made and natural features in the area that could raise design issues in future developments. The major man-made physical feature is the Palm Valley Stormwater Channel. The Channel was constructed by the Coachella Valley County Water District, in conjunction with the cooperation

of a subdivider during the early development of Palm Desert, in alignment with a natural drainage channel.

The major natural physical feature is the hills. The topography may be described as level to very steep with slopes ranging from 0% to over 40%. Also, two drainage areas-- Ramon Creek in the north central part and Cat Canyon Creek at the south end-- and several minor drainage areas bisect the study area.

There is no existing public transportation network west of the stormchannel and south of Painters Path at this time. All of the existing public streets and major highway facilities are located in the northerly portion of the district or east of the Storm-water Channel. The existing roads/driveways west of the Channel are private, accomodating one lane of traffic. The roads are graded but unpaved.

The only public facility in the area is the community center which is located in the central part of the district and operated by the Coachella Valley Recreation and Parks District, the facility includes two tennis courts and a building for meeting.

A variety of land uses exists in the area. Most of the housing is located between Highway 74 and the stormchannel. The types of housing include single-family, condominium and mobile home. Major developments include Sandpiper, Indian Creek Villas, Sands and Shadow, Kings Point, Somerset, and Silver Spur Mobile Home. The different types of housing indicates that the area is heterogeneous.

Potential Conditions: A summary of the planned improvements for the area, as described in other elements of this General Plan and the Palm Valley Stormwater Channel Area Specific Plan (PVSCASP), is discussed below.

- (1) Physical: The Army Corps of Engineers is proposing to cement the Channel. Funding from Congress for this project is expected within the next five to ten years. In conjunction with this project the Corp is also proposing a recreational bike/hike trail adjacent to the Channel. Rest areas are planned at the Community Center and at Cat Canyon Creek.

The Transportation/Circulation and Public Facility Elements indicate that one at grade crossing (at Painters Path) and a bridge (at the extension of Homestead) will be constructed. To provide better access to and within the area two collector street systems lying adjacent to the channel are proposed.

- (2) Land Uses: The Land Use Element Map shows a mixture of densities within the district. West of the Channel on lands less than 20% slope density is 1-3 units per acre. Areas above the 20% slope line are designated either as open space or as one to three units per five acres. East of the Channel, most of the land is designated for 5-7 units per acre, with some areas at 1-3 or 3-5 units per acre.

The land administered by the Bureau of Land Management will remain as open space. Commercial industrial land uses are designated in the northern portion of the area.

Design Features: there are numerous design features evident in the area which should be considered as the area continues to develop in the future. They are as follows:

- (1) Cahuilla Hills: The hillside is an important natural feature within Palm Desert and its preservation increases the overall visual quality of Palm Desert by enhancing visual identity, diversity and interest of the area. Preservation implies not only conservation of the feature itself, where possible, but also visually sympathetic treatment of neighboring buildings and physical development.

In this area, there is the opportunity to preserve the visual impact of hillsides as a natural backdrop to the developed City. There is also the opportunity to manage the intensity of development that occurs within the hills.

Development in the hills should retain natural landmarks and features including vistas and the natural skyline as integral elements. In addition, development should retain natural vegetation which stabilizes slopes. Finally, the City should encourage design proposals for development in hillside areas that will reduce the need for grading and disturbance of the natural environment in hillside areas.

The intensity of development should decrease as slope increases. This would retain the steeper sloped areas in open space to preserve the natural topography. The Palm Valley Stormwater Channel Area Specific Plan, discusses slope analysis and the document should be referenced while considering hillside development.

- (2) Scenic Views: During site plan and design review processes, it should be assured that the placement of units, bike/pedestrian paths and recreation amenities within developments are situated to take full advantage of all possible view points.
- (3) Drainage: Natural drainage ways should be preserved during construction. Development proposals located in identified drainage courses should be accompanied by a hydrologic analysis.
- (4) Overhead Utility Wires: These wires interfere with the area's overall aesthetic beauty and should be underground. It may not be economical or physically feasible to place underground utility wires in all hillside areas. However, in areas where undergrounding is feasible, the City should encourage residents to form an assessment district for this purpose.
- (5) Vacant Parcels of Land: Between Highway 74 and the Stormwater Channel, there are numerous vacant parcels zoned for single family residences. All future developments of these parcels should complement existing development. The guiding principle in this area is: the scale and the character of new construction should be consistent with maintaining the prevailing scale and character of the surrounding neighborhood.
- b. South City District: This district is the largest in size and population of the developed districts. The boundaries include El Paseo and Highway 111 on the north, the incorporated City limits on the south and east, and Highway 74 on the west.

Existing Conditions: The predominant land use in this area is housing. Housing ranges from medium to large lot single family residences, condominium projects and country clubs. Major developments, in this area, include Marrakesh, Ironwood, Deep Canyon Tennis Club and Palm Desert Tennis Club.

Related recreation facilities exist within private development projects. Facilities include swimming pools, golf courses, and tennis courts. Presently, Washington School serves as the only public recreation facility in the south City area. The major private facility with public access, is the Living Desert Reserve.

Besides the public streets, other public facilities include George Washington School, City Hall, the Post Office and electrical substations.

The prevalent drainage pattern in Palm Desert is overland flow in a northeasterly direction to the Whitewater River Stormwater Channel. More specifically, with the exception of some areas adjacent to PVSWC and the area southerly of Haystack Road, (Stormwater) runoff flows predominantly to the north and east, ultimately discharging to the Whitewater Storm Channel.

The major stormwater channel in the south City area is the Deep Canyon Stormwater Channel which skirts the southeasterly portion of the City.

Future Conditions:

- (a) Land Uses: most of the vacant land still available has an urban designation, primarily for residential usage.

- (b) Recreation: the proposed Ironwood Park will be the major public recreation feature in the area and could serve as the major public social interaction feature of the area. The neighborhood surrounding this park site seems to be a combination of retired and family-oriented households. Therefore, it seems appropriate to provide facilities for both. Potential uses in the area include a natural area with desert landscape and pedestrian walkways, an active play area for competitive activities, tot lot area, and area for passive activity.
- (c) Circulation System: the major revision to the circulation system in the area will be the establishment of a bike trail system. The following streets have been designated to be part of the bike system: Haystack Road, Portola, Highway 74 and Mesa View Drive. The design of the bike lanes will be discussed later.

Design Issues: Although most of the area is developed or will be developed in the near future, many design issues exist. In order to achieve the goals and objectives of this element, these issues should be mitigated. The following is a brief discussion of design issues and techniques available to mitigate them.

- (a) Lack of Maintenance of Landscape: certain areas, primarily in the eastern part of the district, have exhibited low landscape maintenance. In addition, some vacant lots tend to be cluttered with junk or unattended. A need exists to correct this situation. Many well-intentioned homeowners are discouraged from providing a high level of maintenance for their

dwelling units or are financially penalized when they try to sell their homes because of another nearby property owner who has not maintained the appearance of his/her residence. Greater concentration of Code Enforcement activities should be provided in this area to eliminate this situation.

- (b) Overhead Utility Wires: existing overhead utility wires detract from the overall aesthetic beauty of the area. In order to make the area more aesthetically pleasing, there is the opportunity to place them underground. The City shall continue consultation with effected area residents to form an assessment district for the purpose of undergrounding these utilities.
- (c) Vacant Parcels of Land: although the City has approved development plans for most of the area, there are still many smaller vacant parcels. The scale and the character of new construction, should be consistent with the surrounding neighborhood.
- (d) Scenic Views: there are numerous scenic views which should be enhanced during future development. Views are of three sources: surrounding hills, valley floor and individual projects. These views should be protected and enhanced in future developments. Techniques to accomplish this include: assure line of sight views, assuring the right of scenic views of others and assuring that the design and colors of structures blend in with the surrounding area. Also, additional landscaping may be required should the project abut a scenic corridor.
- (e) City Edges and Entrances: City edges and entrances exist throughout the area. Development occurring at these locations should

either through landscape treatment or through other means, enhance these points. For example, the setback along City edges could be greater than is presently stated in the Zoning Ordinance in order to enhance, primarily through the treatment of landscape, City edges and/or entrances.

- (f) Lack of Separation between Modes of Transportation: The separation of transportation modes is important in those areas where there is a higher density of population, eg., in the eastern part of the district.

The City should consider establishing a capital improvement item to have the City build sidewalks and/or curbs and gutter or to consult with effected property owners to establish assessment districts for the same purpose.

- c. South Sphere District: the south sphere district includes all of the land within Palm Desert's Sphere of Influence, as established by the Local Agency Formation Commission (LAFCO), south and west of the incorporated City limits.

Existing Conditions: Most of the area is presently kept in it's natural state. The only urban use is an extension of Ironwood Country Club's golf course. Almost all of the land is under the ownership or administration of either the Bureau of Land Management or the University of California, Riverside (Phillip L. Boyd, Deep Canyon Research Center) or is part of the State Game Refuge.

Many outstanding views exist throughout the area, especially along the Palms-to-Pines Highway. Scenic points have been

established along the highway providing panoramic views of the Coachella Valley.

Besides what has been stated, other points of interest include Sheep Mountain, Toro Peak, Deep Canyon and Dead Indian Creek Canyon. Deep Canyon serves as a major drainage area.

Future Conditions: as indicated in the Land Use Element, very little development should occur in this area. Housing, open space, and a public park (to be kept in its natural state) are the designated land uses.

Design Features: the major design feature is the surrounding hills and panoramic views that are in abundance in this area. Any development, either for public use such as Dead Indian Park or for private use such as residential development, should take advantage of these views while planning the site. Views are of three types: (1) of the hillsides, (2) of the Coachella Valley, and (3) of the development projects from the roadside. These views should be enhanced at the time of development. The placement of the unit on the lot can allow the homeowner or renter the opportunity to view both the hills and the valley floor. Landscape treatment should complement the surrounding area and enhance the edges of the development.

Two areas of the district have residential designations. The opportunity exists to have them complement not only surrounding developments, but also the surrounding environment. The stated density i.e., 1-5 units per acre, is an indication of the City's commitment to assure that physical development is balanced with environmental considerations.

- d. Commercial District: the commercial district primarily consists of the commercial strips of Highway 111 and El Paseo. The district extends from the eastern City limits to the western City limits.

Existing Conditions: there are three general types of commercial zones, as described in the Palm Desert Redevelopment Program and the Population/Economic Element of the General Plan; the types and their uses include:

- (a) Core Area Commercial: offices, financial institutions, restaurants, retail commercial uses, including convenience shopping and auto service.
- (b) Planned Commercial - Regional Complex: includes, but is not limited to, supermarkets, department stores, banks, variety stores, professional offices, restaurants and general retail uses
- (c) Planned Commercial - Resort: includes, but is not limited to, hotels/motels, theaters, restaurants, entertainment facilities and related commercial uses.

As noted in the Population/Economic Element, there are three major shopping areas presently in Palm Desert. The first is the Palms-to-Pines Shopping Center located west of the intersection of Monterey and Highway 74. The Center has a broad variety of retail/commercial uses. The second area is El Paseo. Most of the shops are specialty in nature. Small individual shopping plazas, e.g., El Paseo Village, line both sides of the street.

The final area is the strip commercial of Highway III. This area is oriented towards services or automobile uses. In addition to the three major areas there are planned sub areas, such as the Market Basket Center and Smith Food King, which serve as convenience centers.

Presently, there are over 400 retail shops in the City, the greatest number of which are apparel shops. According to issued business licenses, other business categories include: personal services, eating and drinking establishments, specialty shops and home furnishing shops.

Future Conditions: Commercial development will continue to be dispersed primarily along Highway III and El Paseo. Presently, the Palms-to-Pines Center is being expanded westerly, and the City recently approved the proposed Palm Desert Town Center, which will be located across the street from Palms-to-Pines. Finally, a scattering of new office buildings and shopping plazas are under construction, either along El Paseo or Highway III.

Design Features: various design features/issues which are relevant to this area are discussed in this section.

(a) Integration of Proposed Development with Existing Structures:

As new development occurs, there is a need to integrate proposed development design with existing structures. This is easier to do along El Paseo than it is along certain parts of Highway III, where architectural styles are quite different.

In both areas, the nature of building design, selection of structure color, and landscape treatment should complement neighboring structures. Also, adjacent owners should be encouraged to undertake coordinated improvement programs.

(b) Harmonious Transition in Scale and Character between

Designated Land Uses: As stated in a Redevelopment Agency document, "Abrupt changes in scale or character are not usually helpful in creating an urban landscape that hangs together and gives the impression of being well considered." The most sensitive areas are the edges abutting the commercial area and single or multi family residential zones. Techniques available to alleviate this situation include establishing a landscaped buffer zone or parkway between different land uses. Also, walls separating different land uses could be constructed. Finally, affected property owners could undertake coordinated improvement programs to provide for harmonious transition of different land uses.

(c) Meet the Needs of the Young, Elderly and Handicapped: Commer-

cial areas are used by all and new commercial buildings should meet the needs of all. For example, this could mean the inclusion of ramps and other special design features, such as lower drinking fountains, handrails in restrooms, and special parking areas are available for ease of movement and use by the physically handicapped. The State of California has published design criteria to meet the needs of the physically handicapped.

Review of plans by the City should assure that special needs of certain groups are considered.

- (d) Landscape Highway III, El Paseo Medians and Highway III Parkways: Currently there is not a continuity of landscaping along the El Paseo and Highway III median or the parkway separating Highway III from the frontage roads. The planting of trees and ground cover along Highway III median and parkways are possible with the concurrence of Caltrans, the State Agency responsible for the operation of the Highway.
- (e) Undergrounding Existing Utility Lines: Existing overhead utility lines detract from the overall beauty of the area. The undergrounding of these lines should remain a firm policy of the City. Several undergrounding districts have been established and others are pending.
- (f) Removal of Large Signs: Large billboard and identification signs still exist along Highway III. With the passage of the Sign Ordinance, they will eventually be removed. Every effort should be made to remove them as soon as possible. The removal of these signs will greatly enhance the appearance of the area and will greatly enhance the panoramic views of the surrounding hills.
- (g) Promoting Social Interaction: Carefully designed street furniture and interior common areas can make the shopping experience an enjoyable one. For example, well placed rest benches can encourage social interaction between shoppers and admiration for the beauty of the shopping plaza.

(h) Micro-Climate: Micro-climate is an important consideration in planning. Palm Desert experiences a wide range of temperatures-- from winter cold to blistering summer heat. Other weather features, such as blowsand and wind are also evident in the area. The opportunity exists to mitigate the adverse effects of the micro-climate during design review. Other elements of the General Plan have touched upon this issue. For example, the Safety Element indicated different methods of controlling blowsand, such as vegetation or wall barriers. Different techniques are available to mitigate adverse effects of the climate on a small scale. For example, shade trees could be an effective technique to protect shoppers from intense heat. Fountains could have a cooling effect, although psychological in nature, to shoppers during hot summer days. Other techniques should be considered at the time of development.

- e. North City District: this district lies north of the commercial district and south of the Whitewater River. The district is slightly larger than the College of the Desert Specific Plan study area.

Existing Conditions:

- (a) Physical: The Whitewater River serves as the northern boundary of the district and serves as a major open space feature for the large private development it abuts.

The street system is fairly well established in the

southern portion of the area. Major streets include 44th. Avenue, San Pablo, Portola, Cook and Monterey. In the older areas, the roadway design is the same for motor vehicles, bicycles and pedestrians; side-walks do exist in areas surrounding schools.

(b) Land uses:

- (1) Housing: Housing, primarily of the single family type, is the most predominant land use in the area. There is a diversity of housing available to residents. Higher density units are located in the western portion of the district. In the Central Portion, small to medium sized lots are predominant while larger sized residences are predominant in the eastern part of the area. Major developments include Portola Palms, Portola Village, Portola del Sol, Hidden Palms, Chaparral Country Club and Monterey Country Club.
- (2) Recreation: The San Pablo playing field, the Community Park and the College of the Desert facilities are the only public recreational amenities in the area. Related recreational facilities (e.g. swimming pool) are located within private developments.
- (3) Open Space: Besides the open space required by Code, 40 acres of date palm groves are designated as Date Palm Preserve.
- (4) Institutional: the College of the Desert is a major public facility within the area. In addition to the

College, there are two public schools located adjacent to the Community Park on Magnesia Falls and three churches along 44th. Avenue.

Future Conditions:

(a) Land Uses:

- (1) Housing: Housing will be the predominant land use as the area develops. The designation is either planned residential of medium density or single family of medium to large lot size. These designations will emphasize a lower density than now.
- (2) Recreation: A three acre neighborhood park along San Pascual and a six acre park adjacent to the Civic Center site, should be developed in the next few years.
- (3) Streets: Extensions of east/west and north/south streets (e.g., Magnesia Falls and San Pablo) will occur as development continues.
- (4) Institutional: The proposed Civic Center, located at the northeast corner of San Pablo and 44th. Ave., should be constructed within the next few years. The Civic Center site will include a City Hall, library and sheriff facilities.

Design Features:

- (a) Preservation of Date Palm Grove: In keeping with the policy established in the Land Use Element and in the College of the Desert Specific Plan, existing date palm groves, recommended for residential or other develop-

ment, will be required to preserve the date grove character to the greatest extent feasible as a part of the ultimate project. This is different than the proposed Date Palm Reserve, which will be designated as open space.

(b) Establish Identifiable Landscape Design Program:

The City should consider establishing landscape design programs (e.g. street landscaping) to reinforce individual identities for different neighborhoods in various parks of the district.

(c) Lot Consolidation: Many recorded lots front directly onto a major arterial street. If several adjacent parcels could be developed as a single project, the number of driveways with direct access onto arterials would be significantly reduced, which would eliminate many points of conflict for vehicles travelling on the arterial and would encourage more efficient project design.

(d) Construction of Civic Center: The opportunity exists for the City, in conjunction with the construction of the Civic Center, to assure that the Civic Center becomes an important planning component in the area. The treatment of landscaping should be such to serve as a harmonious transitional zone between the Civic Center and surrounding land uses.

(e) Direct Assistance for Private Rehabilitation Efforts:

The College of the Desert Specific Plan pointed out that a good number of the residential buildings are in need of rehabilitation. The opportunity exists for the City to direct energy to alleviate this situation. Various state and federal grants are available, although difficult to receive, for this purpose. The result of such an effort could greatly enhance the overall design and beauty of the area.

(f) Comprehensive Code Enforcement: As stated in the College of the Desert Plan, many homeowners are discouraged from providing a high level of maintenance due to nearby property owners who have not maintained the appearance of their residences. Greater concentration of Code Enforcement activities should be provided within this area to completely eliminate the blight caused by poor landscaping maintenance, improper storage of vehicles and equipment in residential zones.

f. North Sphere District: This district encompasses all of the land between the Whitewater River and Interstate 10 and between Monterey Avenue (extended to Interstate 10) and approximately one half of a section to the east of Cook Street.

Existing Conditions:

(a) Land Uses: There are two areas to this district: the area within the incorporated City limits and unincorporated Riverside County. North of Country Club Drive, close to 90% of the land is still vacant. (See Land Use Element

for further discussion.) South of Country Club, the situation is different. Large development projects are under construction and are of low density nature. The major developments are Monterey Country Club, Portola Country Club, Sagewood, and Chaparral Country Club.

Besides residential units, a service industrial area has been designated for the southeastern portion of the district. One industrial park within the City limits and one industrial park within the County jurisdiction presently exist.

Topographically, this area is typified by rolling desert terrain with a flat ridge running from the northwest to the southwest and generally paralleling Interstate 10. The ridge divides the study area into two distinctive drainage basins. The area northerly of the ridge, slopes steeply to the northeast to a low point paralleling Interstate 10 and the Southern Pacific Railroad tracks. A larger basin, covering nearly two-thirds of the study area, drains to the south and southwest to the Whitewater River Stormwater Channel.

Future Conditions: The City is expanding northward towards Interstate 10. Since the North Sphere District has the greatest amount of vacant land, it is evident that most future development will be in this area. The Land Use Element Map indicates the eventual density of the area, the approximate location of public parks and commercial areas and the potential configuration of major streets.

- (a) Housing: Between April 1977 and March 1980, development plans totaling approximately 5,800 housing units were approved. One third of the approved development plans account for more than 5,300 of the potential housing units. These projects are condominium projects. The Land Use Element Map indicates that housing density will be either low (3-5 units per acre) or very low (1-3 units per acre) or rural (1 unit per 5 acres).

The Housing Element identifies some areas of the district as appropriate locations for either low and moderate income housing. The actual construction of these units is dependent on the availability of funds and other factors, as described in the Housing Element.

- (b) Streets: The Transportation/Circulation Element indicates that major north/south arterial roadways, i.e., Monterey Avenue, Portola Avenue and Cook Street will extend northward from Country Club. Monterey and Cook could eventually extend to Interstate 10, while Portola extends to 36th. Avenue. Two major east/west routes could traverse the area: Frank Sinatra and 36th. Avenue. The extension of these roads should occur as development takes place. All of the aforementioned streets are designated local scenic routes. With this designation, certain design treatment, as delineated in the scenic corridor discussion of this section, should occur. Possible design criteria include raised landscaped medians and additional parkway landscape and pedestrian/bicycle meandering pathways.

- (c) Drainage: As a result of the investigation summarized in the report, Master Plan of Drainage - North Palm Desert Area, a comprehensive master plan of local drainage for North Palm Desert was developed. The basic plan, providing flood protection for a storm of return volume of 100 years, the plan proposes certain surface and subsurface improvements including the construction of retarding basins in the proposed Sand Dunes Park, and adjacent to Interstate 10, easterly of Cook Street. The plan also suggests the construction of approximately 4,800 feet of trapezoidal channel along the north side of Frank Sinatra Drive. The plan is on file with the Department of Environmental Services.
- (d) Commercial: Potential commercial districts serving the north sphere area have been designated on the Land Use Element Map. Three potential locations include sites along Country Club Drive between Monterey Avenue and Cook Street. Another site is possible in the vicinity of Portola and Frank Sinatra Drive. A final location is possible in the area of 36th. Avenue and Monterey Avenue.
- (e) Parks/Recreation: Five public parks are shown on the Land Use Element Map. Two-- Sand Dunes Park and an unnamed park at Monterey and Country Club -- are in the process of being dedicated to or acquired by the City. Most of Sand Dunes will be dedicated as development occurs around the park. The yet unnamed park to be located at the north-east corner of Monterey and Country Club, will be developed

in conjunction with the Mayer Group residential development. Three other sites are scattered throughout the area and will be developed as urbanization occurs. The parks are planned as neighborhood parks and will supplement existing recreational facilities.

- (f) Public Facilities: besides the designated streets, parks and drainage facilities, two fire stations may be built to serve the north area. The exact location of the stations are not known at this time, although, one could be located between Monterey Avenue and Cook Street along Country Club Drive, and the second could be located in the vicinity of Monterey (extended) and Interstate 10.

Design Features: The present development of Palm Desert has occurred with little respect towards the various projects complementing one another. With development of the north sphere beginning to occur, the opportunity exists to assure that future development projects complement each other while allowing for design differentiation between projects. Three techniques are available to accomplish this. The first is to have the landscaped edges of projects similar in design and content. This will allow for continuity to exist. The second technique is to have project walls to be of similar height, design and color tone. For example, if one project's wall is six feet, meandering, and tan, then the neighboring project should also be about six feet, meandering, and of a tan or complimentary color.

As with the project's wall, sidewalks and/or bike paths adjacent to projects should also be of similar design and treatment. The final technique available to have projects complement one another is to have similar types of roof tile.

- (b) Treatment of City Edges/Entrances: the ultimate City edges are primarily located in the north sphere area. In most of the area City edges are represented by streets. City edges include Monterey Avenue, the eastern sphere boundary line between Palm Desert and Indian Wells (approximately one half mile east of Cook Street), and Interstate 10. No street in this district is planned at this time between the interface area of Palm Desert and Indian Wells.

City entrance points include the proposed Interstate 10 interchanges at Monterey Avenue and Cook Street, Hovley Lane, Country Club, Frank Sinatra and 36th. Avenue. Entrances will be from both the west and the east.

Landscaping could be utilized to enhance City edges. The intent should also be to complement the edge of the neighboring community. To be expected, the planning philosophies and the overall goals and objectives of Palm Desert and the neighboring communities of Rancho Mirage and Indian Wells are different, as accentuated in the physical development of the communities.

The treatment of City edges could de-emphasize the psychological reaction to these abrupt differences. Landscaping is the key technique to accomplish this. Along Monterey Avenue, a raised landscaped median can also be a viable technique to accomplish this intent.

The treatment of City entry points can accentuate the differences between cities. The typical technique to indicate City entry is a highway-type sign with the City's name, population and elevation. However, so much more could be done to let an individual know that he/she is entering Palm Desert. With the adoption of this General Plan, it shall be the policy of the City to make City entry points more aesthetic. This topic will be discussed later.

- (c) Blowsand Protection: The north sphere area is subjected to occasional severe blowsand storms. As stated in the Safety Element, the storm can cause significant damage to property. Design techniques could be utilized to protect property from severe sand storms. These design features include, but are not limited to, vegetative barriers, walls, screens, fences, vegetative ground covers and temporary and permanent ground covers. These or other techniques should be considered during the design review process.

(d) Public Facilities Development: Parks, fire station, library and streets will be the major public facilities in the north sphere area. The location (i.e., of parks and fire station) and eventual design of these facilities should play a strategic role in the overall community appearance. Not only do they provide essential services for the area, but also serve as community focal points. The design of these facilities should be integrated with the surrounding neighborhood. Techniques to accomplish this include: landscaping, similar use of structure materials, and complimentary building colors. Since most of the designated streets are part of the highway program, their design and treatment will be discussed later in this section.

(e) Scenic Routes and Pedestrian/Bicycle Parkway Paths:

Pedestrian and/or bike parkway paths are to be located along project edges if specified in the Transportation/Circulation Element to be part of the pedestrian/bike parkway system. Said Element indicates that those streets which are part of either the scenic route system or the bike trail system, an additional twenty foot scenic easement may be required. Pedestrian/bicycle paths should be meandering, in nature, to allow for diversity in travelling and the maximization of landscape treatment.

2. Scenic Highway/Corridor Designation:

- a. Definition: Scenic highways/corridors are another area of design concern in the City. They are designated to assist in the preservation and enhancement of the scenic

resources of Palm Desert. The typology of scenic corridors is described below:

- Rural Scenic Corridors: routes that traverse defined visual corridors within which natural scenic resources are found;
- Urban Scenic Corridors: routes that traverse an urban area within a defined visual corridor; and,
- State Designated Scenic Highway: routes so designated by the State of California.

b. Designated Routes:

This General Plan designates several routes as part of the scenic corridor network. Various criteria were established to designate such routes, including:

- the route delineated on the California Master Plan of State Highways Eligible for Official Scenic Highway Designation
- the route passes through an area of unique natural resources, scenic, cultural, or historical significance not otherwise designated as an open space
- the route may be utilized for sightseeing or study trips to major scenic or recreational areas
- the route is an entryway into the City and possesses significant scenic value

Using the above criteria, various local routes were identified in the Spatial Organization Section of this element.

- c. Scenic Corridor Boundaries: Scenic route and scenic corridor have been used interchangeably without a full discussion of their differences. While scenic route refers to the name of the street or highway, scenic corridor includes the range of visibility. Scenic corridor, therefore, encompasses two primary divisions:

(1) the road and its right-of-way, and (2) the corridor extending out to variable distances beyond the right-of-way.

In order to complete the total appearance or composition of the scenic highway, it is necessary to establish corridors for scenic routes. There are four general categories of factors³ to consider, for establishing such corridors:

- Human Element: This includes aesthetic judgement and the angle and duration of vision. The judgement of experienced resource personnel and the visual experience of the drive, provide guides to the desirable corridor judgement.
- Range of Visibility: This category includes the consideration of topography, vegetation, structures, and distant visibility. It is important to note because of certain natural features, such as low ridges, various portions of the corridor may not be visible from the road. The inclusion of distant view areas or the exclusion of nearby naturally obstructed areas warrants consideration.
- Scenery Characteristics: This category includes outstanding natural and man-made features, the variety of landscape types, preservation of ecologically significant areas, and the visual impact of a unique feature or area.
- Administrative Considerations: This category includes an appraisal of potential protective measures (i.e., flood plain zoning, easements, etc.), legal boundaries, and arbitrary delineation.

The surrounding hillsides serve as the primary backdrop to the scenic routes established earlier in this section. The entire valley, in higher elevations, will become an important ingredient in the various corridors. In most cases, unique features whether natural, such as the Whitewater River

³ Categories are discussed in detail in The Scenic Route, A Guide for the Official Designation of Eligible Scenic Highways:

or man-made, such as parks, schools, commercial, employment or residential centers, or buildings of architectural, historical, or civic value, will be included in the local scenic corridor together with the surrounding hillside.

d. Standards for Corridor Protection and Highway Design:

As stated, it is necessary to establish standards for the protection or implementation of these scenic corridors. The control of the visual quality of all areas within scenic corridors will involve the commitment and the cooperation of City staff resources and developers to a design guideline and review process. The following items should be considered in the establishment of standards and should be included in the Design Manual:

- Regulation of land use and density of development
- Detailed land and site planning
- Control of outdoor advertising
- Careful attention to and control of earthmoving and landscaping
- Design and appearance of structures and equipment

As indicated earlier, there are two primary divisions to a scenic corridor: the immediate right of way and the extension of the corridor from the roadway to some point in the background. The right of way has immediate impact upon the roadway and carries a larger responsibility in delineating a scenic corridor than does the actual corridor. Within the right of way, there are several design concerns that should be addressed at the time development occurs along the designated routes.

- The roadway and its essential elements, such as bridges
- Adequate right of way for landscaping and similar associated needs (bike paths)
- Turnouts and parking spaces
- Pathways
- A buffer to screen the roadway of incompatible uses
- Line of sight.

3. Signs:

Signs are another area of design concern. Signs are only one component of an overall streetscape which also includes lights, trees, and benches among other street furniture. Signs are important in the sense that they establish a special character, a sense of identity and order to a community. A well-designed sign system can serve as a vehicle to assure design continuity within the City.

The continued enforcement and enactment of the Sign Ordinance will help to achieve one of the major objectives of this element - the creation of a distinctive sign character for Palm Desert. The Sign Ordinance was enacted to provide for a more orderly presentation of advertising displays and identification on properties within the City and to bring signs into harmony with the building, the neighborhood and other signs in the area. Sign standards will allow Palm Desert to take on a more unique and distinctive appearance compared to surrounding communities and would immeasurably improve the physical appearance of the City. Although changes to the Sign Ordinance should occur to reflect changing needs and circumstances, the objectives, as stated above and in the purpose section of the Ordinance, shall remain intact.

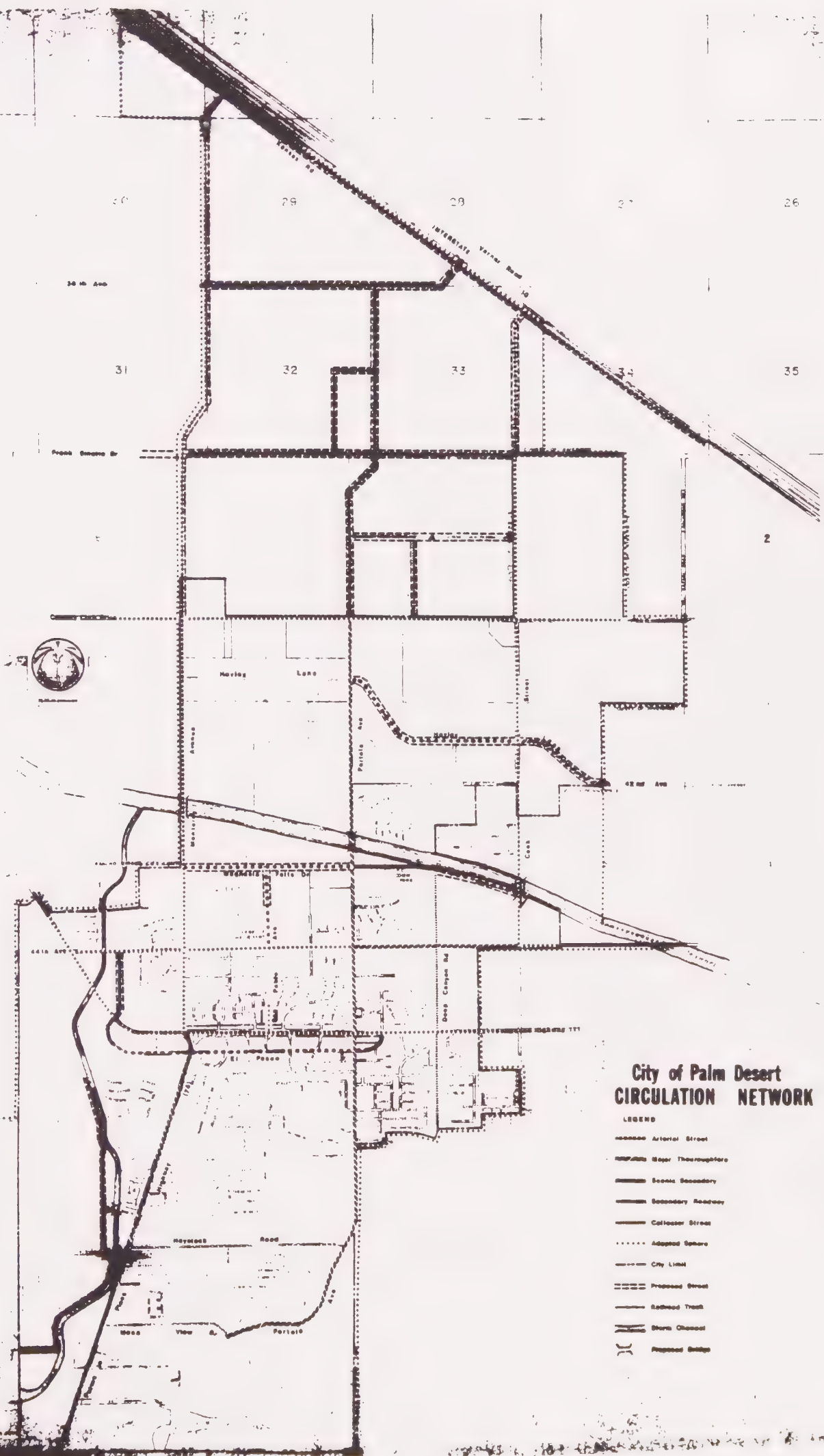
Signs serve several purposes. First, they are identification markers for businesses and residential developments. Second, they provide information such as the location of a hospital, library or church. Safety is a third (and perhaps the most vital) purpose of signs as exemplified by traffic safety signs. A fourth purpose of signs is to provide direction, such as street signs. Finally, signs indicate landmarks, such as historical sites, scenic routes/corridors and City entrance points.

Up until now, the primary activities of Palm Desert in the area of signs were regulating on-premise signs and project identification signs. With the adoption of this Design Element and of this General Plan, the City will embark on two sign programs. The first deals with directional signs to major country clubs and development projects, and the second is with the treatment of City entry points.

The opportunity exists for the City to direct individuals to major country clubs and development projects by placing signs at strategic locations along major roadways.

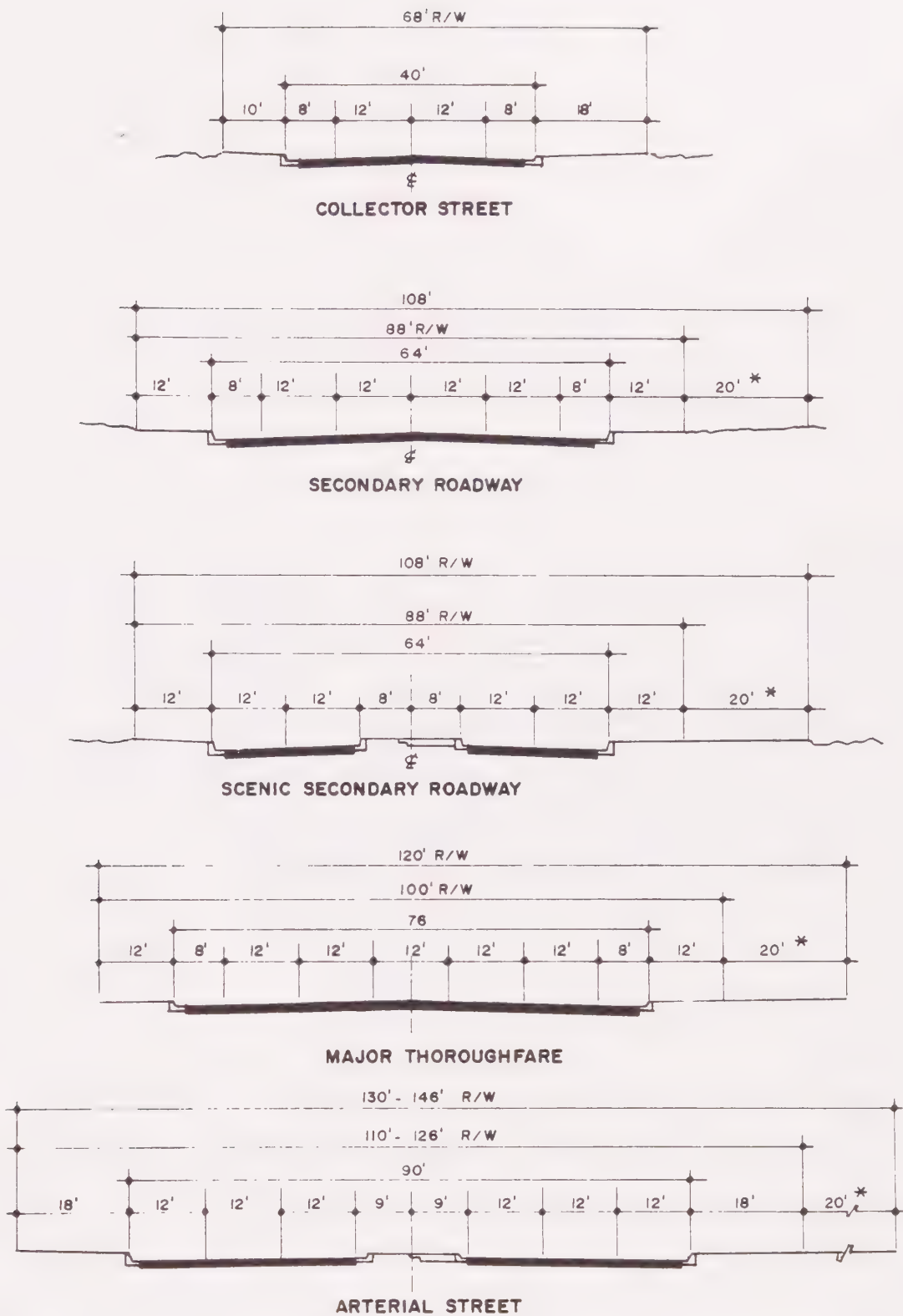
These signs would be on wood backdrop with lettering being legible. Strategic locations include the major intersections of Highway III and along other present or proposed arterial routes. Not every development could or should be identified since this could cause cluttering of signs throughout the City. Size, unique features (for example, the site is a location of a major golf or tennis tournament or architectural uniqueness), or location could be the guiding principle. The City should decide which projects warrant such signs.

The treatment of City entry points can accentuate the differences between cities. The typical technique to indicate City entry is a highway-type sign with the City's name, population and elevation. However, so much more could be done to let individuals know that they are entering Palm Desert. With the adoption of this General Plan, it shall be the policy of the City to make City entry points more aesthetic. At major entry points, for example, Interstate 10 interchanges, a City entry monument could be built that shows the City's seal and name. The monument could be built to have other features, such as water, and should be well landscaped. For non-major entry points, the City seal, name and population could be placed on wood background. These monuments or signs could be tied to surrounding features. For example, if a park exists at an entry point, then the City's name and the Park's name could share the same sign. These signs would catch the visitor's eye as he/she enters the City. If possible, these signs should be erected at the time development at that entrance point occurs.



City of Palm Desert CIRCULATION NETWORK

- LEGEND
- Arterial Street
 - Water Thoroughfare
 - State Secondary
 - Secondary Roadway
 - Collector Street
 - Adopted Sphere
 - City Limit
 - Proposed Street
 - Railroad Track
 - Shore Channel
 - Proposed Bridge



* SCENIC EASEMENT (Variable), where appropriate.

FIGURE 1
GENERAL GUIDELINES FOR ROADWAY CROSS SECTIONS

Scale 1" = 20'

III-D

**PUBLIC FACILITIES
ELEMENT**

DRAFT
PUBLIC FACILITIES ELEMENT

I. INTRODUCTION

Public facilities form a vital part of a city's quality of life for both individuals and groups. A society's basic needs for health, education, welfare, safety, and recreation are met in large part by the community's public and quasi-public facilities. The term public facilities is used in this element to indicate the urban infrastructures, such as parks, schools, sewers, libraries, etc., necessary to meet the community's needs. Public facilities include those owned, operated and/or maintained by the City or other governmental entities as well as those owned, operated and maintained by private enterprise for the benefit of the community. The types of such facilities, their relationship to one another, and appropriate patterns of location are a response to the desires and needs of the people they serve as well as a reflection of the technological and organizational resources available.

For the most part, public facilities, as a service to be provided to residents, follow rather than lead development. The location and timing of development plays a significant role in the planning of public facilities. It is important that essential services be available to new residents, although the actual provision of the services may be provided through private sources.

Therefore, in developing a general plan for a community, it is important that public facilities be developed in a manner which both fulfills the needs and desires of the residents and commerce and responds to the pace and the location of residential and commercial/industrial development

according to the City's financial resources and funding policies.

The purpose of this element is to discuss the present and future capacities of public facilities. The element considers all of the public facilities presently in existence in Palm Desert. In addition, its purpose is to anticipate and plan for the social effects and implications of physical development.

There are three functions of the element:

1. establishes policies, goals and objectives relative to the planning and development of public facilities;
2. provides for a coordinated system of public facilities; and
3. assure the maximum usage of available resources to meet local needs.

The element has been divided into four sections:

- Goals and Objectives
- Concept of Public Facilities
- Public Facilities Analysis
- Implementation Strategy

The Goals and Objectives section represents the ends to be achieved by Implementation Strategies. Concept of Public Facilities discusses the need to consider the provision of public facilities in the planning process. Furthermore, the section discusses the limitations facing many communities, including Palm Desert, in providing public facilities. The third section, Public Facilities Analysis, provides necessary inventory information about existing facilities. The Implementation Strategy section describes the means in which to achieve the ends (goals and objectives).

II. GOALS AND OBJECTIVES

Goal

- Provide a full range of public facilities and services that are related to citizen needs, are economical, and are convenient.

Objectives

- Coordinate the planning of public facilities and utilities with all special districts to ensure that duplication is avoided so that future development and growth can be adequately served.
- Encourage citizen participation on a continuing basis as a means of identifying public facility needs and standards for facilities.
- As the city develops, create an appropriate balance between city-provided and contract service.
- Distribute facilities and services throughout the city to provide convenient access.
- Ensure that adequate community facilities are available before or along with private development approval, in order to guarantee that facilities are not overloaded and areas are not left unserved.
- Ensure that increased service demands due to new development and the financial participation of developers in providing these additional services are equal.

II. CONCEPT OF PUBLIC FACILITIES

This section discusses the concept of public facilities. The relationship of this element to other elements of the General Plan, the approach of the City in providing public facilities and limitations and opportunities in developing public facilities will be discussed. This discussion is important to fully understand the role public facilities plays in the physical development of the community and the limitations and opportunities that exist in their provision.

A. Relationship to Other Elements

The elements of the General Plan are all, to some degree, related and interdependent since together they provide the policy framework to direct development needed to serve people and their activities within a given political jurisdiction and its sphere of influence. Since the provision of public facilities tends to follow rather than lead development the other elements of the General Plan are very important to the public facilities element. The other elements provide vital information concerning the location, nature and timing of developing public facilities. The land use element indicates the possible sites of future public facilities such as the civic center, police and fire stations, libraries, and hospitals. Since the location of these and other facilities are dependent upon future growth areas the land use element plays a significant role in the decision-making process. The population/economic and housing elements provide essential social and economic characteristics which could assist in the determination of the nature and timing of public facilities. Finally, the environmental elements provide important

A. Relationship to Other Elements (Continued)

information regarding the environmental constraints of locating public facilities in certain areas of the city.

B. Approach of City

The city's approach is to develop a well integrated system of public services. Because of the size of the community the emphasis should be, whenever feasible, on a localized program through a multi-centered approach. Even with this approach the intent is to bring the services to the people instead of requiring the people to go to the services. As stated in the General Plan adopted in 1975, "As cities grow at the rapid pace that Palm Desert has, there is a frequent concern on the part of the residents that the pending 'bigness' of the community will no longer allow them ready and easy access to their public servant." The policies within this element address this concern; the intent is to allow ease of access.

New development is the major source of additional service demands. With the adoption of this General Plan, it is the intent of the City to ensure that increased service demands and the financial participation of developers, in providing facilities to meet these demand increases, are equal.

Inherent within the concept of public facilities in Palm Desert is the development of a program of public services that will be economical and, at the same time reflect the service needs and desires of the city's residents. Table 1 indicates a variety of public facilities which may be either publicly or privately provided within the City as well as providing a reference for facilities which could be considered in the future of the city.

PUBLIC FACILITY STANDARDS Population required to support facility ● MIT Study x Fairfax County Study	POPULATION		USERS	LIFE SUPPORT LINKS
	500 - 1000 1000 - 5000 5000 - 10,000 10,000 - 20,000 20,000 - 30,000 30,000 - 40,000 40,000 - 50,000 50,000 - 100,000 100,000 - 250,000 250,000 - 1,000,000 1,000,000 - 1,500,000	SCALE FLEXIBILITY 1 - 5 AND/OR B+ B+ AND/OR B- B- AND/OR B- MAXIMUM	CHILDREN TEEN YOUNG COUPLES YOUNG SINGLES MIDDLE-AGED ELDERLY TOTAL-POP. TARGET UTILIZATION TABLE IV POTENTIAL	
1. INSTITUTIONAL				
a. Post Office	● 500			
b. Library	● 500			
c. Church	● 500			
d. Town Hall	● 500			
e. Fire Station	● 10,000			
f. Police Station	● 10,000			
g. Waste Disposal Plant - advanced	● 10,000			
h. Waste Disposal Plant - conventional	● 10,000			
i. Dispersed Community Clinics	● 10,000			
j. Multi-Purpose Centers	● 10,000			
k. Judicial Office	● 10,000			
l. Airport	● 10,000			
m. Railway Station	● 10,000			
n. City Hall	● 10,000			
2. RECREATION I				
a. Communal Garden	● 500			
b. Infants' Play Space	● 500			
c. Children's Play Space	● 500			
d. Restaurant	● 500			
e. Local Park	● 500			
f. Playground	● 500			
g. Bar, Saloon	● 500			
h. Recreation Meeting Rooms, Arts and Crafts	● 500			
i. Local Museum	● 500			
j. Art Gallery	● 500			
k. Small Theatre and Meeting Areas	● 500			
l. Community Center, Multi-Purpose	● 500			
m. Community Center, Multi-Purpose	● 500			
n. Community Center, Multi-Purpose	● 500			
o. Community Center, Multi-Purpose	● 500			
p. Community Center, Multi-Purpose	● 500			
q. Community Center, Multi-Purpose	● 500			
r. Community Center, Multi-Purpose	● 500			
s. Community Center, Multi-Purpose	● 500			
t. Community Center, Multi-Purpose	● 500			
u. Community Center, Multi-Purpose	● 500			
v. Community Center, Multi-Purpose	● 500			
w. Community Center, Multi-Purpose	● 500			
x. Community Center, Multi-Purpose	● 500			
y. Community Center, Multi-Purpose	● 500			
z. Community Center, Multi-Purpose	● 500			
3. RECREATION II				
a. Drive-in Theater	● 500			
b. Golf Course	● 500			
c. Soft-Serving Kiosk	● 500			
d. Tennis Club	● 500			
e. Swimming Beach	● 500			
f. Marina	● 500			
g. Convention Hall	● 500			
h. Football Stadium	● 500			
i. Olympic Swimming Pool	● 500			
j. Local TV Station	● 500			
k. Regional Park	● 500			
l. Amusement Park	● 500			
m. Symphony Orchestra	● 500			
n. Zoo	● 500			
4. EDUCATION				
a. Day Care Center	● 500			
b. Kindergarten Class Room	● 500			
c. Elementary School	● 500			
d. Middle School	● 500			
e. Library, Educ. Resources Center	● 500			
f. High School	● 500			
g. Dispersed Day Care Centers	● 500			
h. Dispersed School Unit	● 500			
i. College Education	● 500			
j. Centralized Educational	● 500			
k. Community TV Station	● 500			
l. Community College	● 500			
m. Community College	● 500			
n. Community College	● 500			
o. Community College	● 500			
p. Community College	● 500			
q. Community College	● 500			
r. Community College	● 500			
s. Community College	● 500			
t. Community College	● 500			
u. Community College	● 500			
v. Community College	● 500			
w. Community College	● 500			
x. Community College	● 500			
y. Community College	● 500			
z. Community College	● 500			
5. HEALTH				
a. Chronic Disease Unit	● 500			
b. Nursing Home Unit	● 500			
c. Mental Hospital Unit	● 500			
d. Diagnostic and Treatment Center	● 500			
e. Welfare Agency	● 500			
f. 100-bed Hospital	● 500			
g. Public Health Center	● 500			
h. 25-bed Hospital	● 500			
i. Mental Health Clinic	● 500			
j. Rehab. Center	● 500			
k. 100-bed Hospital	● 500			
l. 25-bed Hospital	● 500			
6. EMPLOYMENT				
a. Office Complex	● 500			
b. Corporate Center	● 500			
c. Local Industry	● 500			
d. Local "Neighborhood" Industrial and Commercial	● 500			
e. Retail Store	● 500			
f. Retail Store	● 500			
g. Retail Store	● 500			
h. Retail Store	● 500			
i. Retail Store	● 500			
j. Retail Store	● 500			
k. Retail Store	● 500			
l. Retail Store	● 500			
m. Retail Store	● 500			
n. Retail Store	● 500			
o. Retail Store	● 500			
p. Retail Store	● 500			
q. Retail Store	● 500			
r. Retail Store	● 500			
s. Retail Store	● 500			
t. Retail Store	● 500			
u. Retail Store	● 500			
v. Retail Store	● 500			
w. Retail Store	● 500			
x. Retail Store	● 500			
y. Retail Store	● 500			
z. Retail Store	● 500			
7. TRANSPORTATION				
a. Private Carpool	● 500			
b. Auto Service Station	● 500			
c. Public Car Pool	● 500			
d. Public Transportation	● 500			
e. Local Station	● 500			
f. Local Station	● 500			
g. Local Station	● 500			
h. Local Station	● 500			
i. Local Station	● 500			
j. Local Station	● 500			
k. Local Station	● 500			
l. Local Station	● 500			
m. Local Station	● 500			
n. Local Station	● 500			
o. Local Station	● 500			
p. Local Station	● 500			
q. Local Station	● 500			
r. Local Station	● 500			
s. Local Station	● 500			
t. Local Station	● 500			
u. Local Station	● 500			
v. Local Station	● 500			
w. Local Station	● 500			
x. Local Station	● 500			
y. Local Station	● 500			
z. Local Station	● 500			

FIGURE 1
COMPREHENSIVE PUBLIC
FACILITIES GUIDELINES

Source: Adapted from
Massachusetts Institute
of Technology
INNOVATIONS IN
NEW COMMUNITIES,
MIT Press, Cambridge, 1973

C. Limitations/Opportunities

There are many limitations to achieving the goals and objectives of this element. It is the purpose of this section to consider various economic, political/institutional, and physical limitations that directly effect the successful implementation of the goals and objectives of this element. However, opportunities for local officials to assert leadership to effectively deal with these limitations are also considered.

1. Economic: Recent action by California voters and the overall economic situation have hindered the ability of local government to guarantee the availability of funds for the development of public facilities. California voters have voiced their desire to limit government through the passage of Proposition 13 in 1978 and Proposition 4 in 1979. Although the passage of Proposition 13 did not directly affect Palm Desert (the City levies no property tax) it impacted those services, such as schools, which receive County property tax dollars. For example, even with state aid, school districts statewide had a revenue reduction of \$1.3 billion.*

The future financial viability of local governments is uncertain. The distribution of state surplus revenues greatly reduced the magnitude of predicted post-Proposition 13 budget reductions. The passage of Proposition 4, which sets parameters on the future growth of government, will bring closer the day local governments will have to come to grips with the real revenue loss mandated by Proposition 13.

*Kemp, Jack; "California's Proposition 13: A One Year Assessment", Urban Land Institute, July/August 1979, p.13

1. Economic (cont.)

In addition to local restraints, federal money is becoming tighter and tighter. Although local government has the responsibility of meeting local needs, funding for these services is now beyond the financial means of most cities. Besides being in limited quantity, the competition for available dollars is fierce.

These economic constraints are shifting the responsibility of providing public facilities from local government to the developer. Traditionally, the City and the developer shared in the cost of providing public facilities such as sewers and parks. Developers are now paying for a greater share of the cost. Developers are required to either provide for the facilities at the time of construction or pay a fee for that facility. Although having developers pay a greater share of the cost adds to the overall cost of housing, the public's health, safety and general welfare is the prime concern.

2. Political/Institutional: The large number of authorities responsible for providing public facilities is a second limitation with which the City must contend. In many cases, the provision of needed public services rests not with the City of Palm Desert but with another governmental or non-governmental entity. The following chart depicts the major provider of various public facilities in Palm Desert.

2. Political/Institutional (cont.)

TABLE 2
PROVIDER OF PUBLIC FACILITIES

<u>FACILITY</u>	<u>CITY</u>	<u>OTHER PUBLIC AGENCY</u>	<u>PRIVATE</u>
Schools		X	X
Water		X	
Parks/Recreation	X	X	X
Hospital		X	X
Library		X	
Sewers		X	
Solid Waste Disposal	X		
Police	X		
Fire	X		
Public Transportation		X	
Bridges	X		

As can be seen, most of the public facilities are provided by an entity other than Palm Desert. Three of the services--solid waste disposal, police and fire--are provided by the City through contract with either a private firm or Riverside County.

The City, however, has a role in the provision of each of the aforementioned public facilities. The role of the City ranges from advisory to actually providing the facility. In some areas, for example, schools, and hospitals, the City plays a minor role, although decisions by education and health planners may have far-reaching impacts on the surrounding neighborhood or the entire community. The City can assist the planners of these facilities by providing information on population growth, characteristics and movement; economic projections; capital improvement plans and other information that may affect the general planning of these facilities. The City also, through the Land Use Plan,

2. Political/Institutional (cont.)

provides for the location of potential sites of these facilities. In addition, the City's planning process allows the City to review and comment on specific sites and design of proposed facilities.

The City's responsibility increases in providing, operating and maintaining other types of facilities. Perhaps the most important point that should be made is that since many districts are involved in providing public facilities there is a need for continued cooperation and coordination of planning activities between the City and other entities to assure that existing facilities are not overloaded, duplication is avoided and all future areas of development are served without difficulty. The Implementation Strategy section discusses planning tools and techniques that are available to attain these objects.

In closing, although there are a few limitations to providing adequate levels of public facilities the opportunity exists for local officials to assert strong leadership to not only maintain and improve existing facilities but also assure an adequate level of public facilities for future residents.

IV. PUBLIC FACILITIES ANALYSIS

The objective of this section is to provide necessary inventory information concerning public facilities in Palm Desert. Rather than being an indepth analysis the following discussion provides a short description of the existing facilities such as schools, hospitals, and parks.

Parks

Parks and recreation facilities are fully covered in the parks and recreation element. Developed public recreational areas within Palm Desert are presently at a minimum; a situation that existed at the time the City incorporated. Presently, the Community Park, the Community Center and Olsen Field are the only public recreation facilities in Palm Desert. Most large developments provide private recreational areas, for example, tennis courts, swimming pools and golf courses, for usage by their residents.

In the near future, the City intends to develop the proposed Ironwood Park site, the Civic Center Park site and the San Pascual Park site. Special emphasis will be placed upon supplementing private recreational facilities.

The City has a number of methods available to acquire future park sites. The most common method is contained in the Subdivision Ordinance which specifies the amount of land which must be dedicated or fees that must be paid to the City as a part of new subdivision approvals. As provided in the City Municipal Code, the dedication will be at a rate of not less than 1.2 acres of land per 100 lots or 5% of the total area in the subdivision, whichever is greater. There are requirements for dedication or payment of fees for subdivision consisting of fewer than 100 units. Other revenue sources to acquire and develop park sites include the new Construction Tax and various State and Federal grants.

Libraries

There are two branches of the Riverside Public Library/Riverside County Free Library system serving the entire planning area. The Palm Desert Library, constructed in 1962, is about 3500 square feet and has approximately 21,000 volumes in its collection. The Palm Desert Country Club branch contains nearly 3400 volumes. In addition to their regular book lending services, the branches provide regularly scheduled programs, films, phonograph record circulation, photocopy service and school visits.

The proposed civic center site provides for the construction of a new library, if deemed desirable in future planning stages.

With a total of about 18,000 permanent and seasonal residents in the entire planning area, there are over 24,000 volumes of books, or about 1.25 books per person. According to County library officials, this level of service is adequate to meet the needs of the community.

Hospitals

The planning of health facilities is primarily the role of both the private and public sectors. Within the Coachella Valley there are numerous private facilities serving Palm Desert residents. The Eisenhower Medical Center and Palm Springs Hospital provide the most extensive services at the local level.

In addition to the numerous privately-owned facilities, the Riverside County Health Department operates various health programs. Most of the continuing community personal health and mental health services for the desert area are located in County facilities in Indio. Personal health services include crippled children services, health education, cancer screening, family

IV. PUBLIC FACILITIES ANALYSIS (cont.)

planning, and tuberculosis and venereal disease control. Other services include a mental health clinic, the Desert Community Drug Team and the Desert Methadone Treatment Program.

Schools

The schools which serve the Palm Desert area include George Washington School (grades Kindergarten, 1 and 2) located at 45-678 Portola, Lincoln School (grades 3 through 5) located at 74-100 Rutledge Way, and Palm Desert Middle School (grades 6 through 8) located at 74-200 Rutledge Way in Palm Desert and Indio High School located in Indio.

The enrollment figures for these schools are shown in Table 3.

TABLE 3
PALM DESERT SCHOOL ENROLLMENT
1977-1979

<u>SCHOOL</u>	<u>1977/1978 PEAK ENROLLMENT</u>	<u>1978/1979 PEAK ENROLLMENT</u>	<u>NOVEMBER 1979 ENROLLMENT</u>	<u>OPTIMUM CAPACITY LEVEL</u>
George Washington	528	477	490	540
Lincoln	484	524	529	540
Middle	527	570	564	600
Indio High	2575	2574	2588	2700

SOURCE: Desert Sands Unified School District

New residential developments that have been constructed throughout the school district, which extends from Palm Desert to Indio, are taxing the existing physical facilities. According to school officials, future physical expansion will be extremely difficult since no development fee

IV. PUBLIC FACILITIES ANALYSIS (cont.)

is paid to the school district and there are few other available sources. In addition, there is some question whether the establishment of a development fee earmarked for school facilities in the future is legal under the provision of Proposition 13. If funding for schools is somehow obtained then the school district will consider a site in the Palm Desert Country Club and La Quinta areas. The district presently owns approximately 40 acres in Palm Desert; a high school is proposed for this site.

To meet short run expansion needs the district will add portable buildings to existing facilities. In the long run, when the school district can no longer add portables and funding for new facilities is not available, then double sessions and year-round school may be instituted.

Presently the City and developed area of the north sphere are within the jurisdiction of the Desert Sands Unified School District. Any development occurring north of Frank Sinatra Drive will be within the jurisdiction of the Palm Springs Unified School District. According to school officials, there are no present plans to locate any new schools in the Palm Desert area.

Water

Water is supplied to Palm Desert by the Coachella Valley Water District (CVWD) and Palm Desert Community Service District from their various wells scattered throughout the area.

Civic Center

According to the Capital Improvement program, the initial construction phase of the Civic Center will be completed in 1983. The approximately 13 acre site located at San Pablo and 44th Avenue will house all City government offices. In addition, the site will include a community center, an outdoor theater and a park. A new library building and a sheriff/police building may be included if found desirable in the future.

IV. PUBLIC FACILITIES ANALYSIS (cont.)

Police Protection

Police protection is provided by the Riverside County Sheriff's Department. The Sheriff's Department provides response service to requests for service and investigatory services in criminal cases.

The present agreement between the City and the Sheriff's Department for law enforcement services is 2.5 persons on a continual basis; broken down by two individuals for part of the year and three individuals for part of the year.

A contract for law enforcement services can be written for any level of service desired by the City which would provide for proper controls by both parties. Constant review of the service is an administrative function which is accomplished. The results of the review is the subject of discussion with the City and the basis for action of upgrading.

In addition to police protection services provided by the Sheriff's Department, many of the large development projects have hired private internal security services for their residents. These forces should work in conjunction with and not separate from the Sheriff's Department.

Fire Protection

The Riverside County Department of Fire Protection provides fire service within Palm Desert. One fire station is presently located on El Paseo and has two 1250 gallons per minute trucks. It is expected that these trucks will be replaced by 1500 gallons per minute trucks in the next few years.

The present fire station will be relocated near the proposed Palm Desert Town Center. Two other new stations are planned for the near future. One, which is near completion, is located adjacent to Ironwood Country Club

IV. PUBLIC FACILITIES ANALYSIS (cont.)

and will primarily serve the southern portion of the community. The northern portion of the planning area will be served by a station to be constructed north of the Whitewater River in the vicinity of Country Club Drive and Cook Street. It is strongly recommended that such a facility be constructed prior to development of 30% of the entire north area.

The Fire Marshal has also recommended a fire station to be located in the Monterey Avenue/Interstate 10 vicinity.

Solid Waste Disposal

The planning area is within the service boundaries of Palm Desert Disposal Services. This company uses two disposal sites, Edom Hill and Coachella. Edom Hill is located northwest of the City, toward Desert Hot Springs; Coachella is east of the City.

Edom Hill has a capacity of approximately 4,000,000 cubic yards and is receiving fill at a rate of approximately 150 tons per day. Coachella Valley has the same capacity and is receiving fill at a rate of about 290 tons per day. Both facilities are expected to be in operation until the year 2000.

Sewer Services

Sewer services are provided to the Palm Desert area by the Coachella Valley Water District (CVWD). Effluent is transported via sewer lines to the treatment facilities located at Cook Street. According to CVWD officials, the treatment plant has an average daily flow of 2.5 million gallons per day with total capacity about 4 million gallons per day.

IV. PUBLIC FACILITIES ANALYSIS (cont.)

Bridges

Two bridges crossing the Whitewater River should be constructed as development occurs in the north sphere area. The bridges are to cross the river at Monterey Avenue and Cook Street. In addition to being transportation facilities for residents, these bridges are necessary to provide ease of access for emergency vehicles during time of either an extraordinary emergency, such as an earthquake or flood, or other natural disasters or accidents; or unusual peacetime emergencies such as civil disorder.

The Palm Valley Stormwater Channel Area Specific Plan recommended a bridge crossing as an extension of Thrush Road. As stated in the Specific Plan, "the proposed bridge crossing would provide for the easy extension of public utilities to the majority of the property owners in the study area as well as providing access if the Stormwater Channel is flooded." (P. 51) The plan also recommended that at grade crossings be located at the extension of Bel Air Road and the Community Center.

State statutes permit a community to adopt a local ordinance that may require the payment of a fee as a condition of approval of a final map or as a condition of issuing a building permit for purposes of defraying the actual or estimated cost of constructing bridges. An ordinance requiring such a fee should be adopted.

V. IMPLEMENTATION POLICIES

In order to ensure that public facilities exist to meet the needs and demands of current and future residents there must be a commitment and a willingness on the part of local officials of Palm Desert and of those districts providing services to the City to take appropriate action.

The following are the official policies of the City:

- o Work closely with the school district to encourage the joint use of facilities as neighborhood public service centers for information, recreation and cultural activities.
- o Work with other public agencies and levels of government to develop multifunctional public service centers in key locations throughout the community.
- o Periodically survey residents to determine preceived levels of service for community services and facilities to identify shortcomings.
- o Award contracts to public agencies or private contractors in order to reduce costs and encourage innovation in provision of community facilities and services.
- o Contract with other entities, public or private, when appropriate, for the provision of various community services when the services provided are more economical or of superior quality, more available or accessible, or will generally serve the needs of all or portions of Palm Desert.
- o Require that all developments be in accordance with other city plans and technical specifications; provide for the expansion of the necessary services to serve the needs of that development. Any development that is not in accordance with City plans will additionally provide for the necessary modifications of services to accomodate that unplanned need.

V. IMPLEMENTATION POLICIES (cont.)

- o Permit development only if community facilities such as schools, police protection, recreational facilities, will be available for that development at a level required for that development.
- o Continue to coordinate planning with the providers of public services (e.g., water district) to ensure that all present and future needs are met.
- o Provide that fire and library facilities exist north of the Whitewater River prior to 30% development of the area.
- o Provide that the cost of increased service demands due to new development and the financial participation of developers, in providing facilities to meet these demand increases, be equal.

In order to implement the above policies, the City has a variety of planning tools already at its disposal. The intent is not to replace these tools but to refine them to make them relevant to today's needs.

- o Site Plan Review: The planning process provides an opportunity to critically inspect and review every development plan that is proposed. The process should include an evaluation of the project's compatibility with the provision of public facilities and services. The development proposal can be approved with conditions to resolve any difficulties due to the project.
- o Environmental Impact Assessment/Report: The City should require, through the environmental assessment process, all developers of residential property to discuss the effect the project will have on public facilities. The City could require environmental documents and reports

V. IMPLEMENTATION POLICIES (cont.)

to analyze the long term effects the project may have on water supply, school enrollment, and other public facilities. The City could require developers to present alternatives to alleviate the potential adverse impacts which have been identified.

- o Capital Improvement Program: The City has a five year Capital Improvement Program based on future community needs and expected revenue to pay for these needs. Included in the development and/or other entities (e.g., school district) whose responsibility entails providing public facilities.
- o Bridge Fee Ordinance: As allowed by State Statutes the City should adopt an ordinance requiring the payment of a fee as a condition of approval of a final map for purposes of defraying the actual or estimated cost of constructing bridges.
- o Subdivision Regulations: These regulations are used to insure that large development projects are in compliance with the General Plan and zoning. Regulations presently require developers to dedicate portions of their property or pay a fee to provide for parks. In addition, the regulations require, if necessary, developers to provide for sewer and water lines and other essential services.

IV

SOCIAL/ECONOMICS ELEMENTS

IV-A

**HOUSING
ELEMENT**

EXHIBIT A

CITY OF PALM DESERT

GENERAL PLAN

HOUSING ELEMENT

PREPARED BY CITY OF PALM DESERT
DEPARTMENT OF COMMUNITY DEVELOPMENT/PLANNING

RAMON A. DIAZ, DIRECTOR
Philip Drell, Senior Planner
Tonya Monroe, Secretary

Adopted December 14, 1989
Resolution No. 89-137

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HOUSING ELEMENT

The goals, policies and implementation programs set forth in the Palm Desert Housing Element to the General Plan are guided by California State Housing Objectives.

1. Provisions of decent housing for all persons regardless of age, race, sex, marital status, source of income or other arbitrary factors.
2. Provision of adequate housing by location, type, price and tenure.
3. Development of a balanced residential environment including access to jobs, community facilities and services.

This element will examine the nature of the existing housing stock in relation to the character and needs of Palm Desert residents and how future development can best meet future needs.

I. BACKGROUND

A. POPULATION AND HOUSEHOLD CHARACTERISTICS:

The California Department of Finance estimated (see appendix for complete data) Palm Desert's 1989 permanent population to be 19,454 in 8546 households. Southern California Association of Governments (SCAG) projects growth to 10,301 households by 1994.

The two most populous age categories identified in the 1980 census were 65+ (2176-18%) and 25-34 (1830-16%). This compares with 1185-10% for the 45-54 age category. The dominance of young adults and seniors is responsible for a large number of small, often childless, households. One and two person households accounted for 72% of the Palm Desert total. Sixty-five percent (65%) of married couples had no children. Only 824 households (7%) had more than three members. These young and old households which dominate Palm Desert demographics generally represent age groups with the lowest incomes. The 45-54 age group, usually associated with the highest income producing period, comprised the smallest segment of the Palm Desert community.

B. INCOME AND EMPLOYMENT:

In 1980, Palm Desert median household income for a family of four was \$19,647. The 1989 Riverside/San Bernardino area median was \$32,200. Total Palm Desert resident employment in 1980 was 5681 with sales and service accounting for 68%. There were 179 families living below the poverty line of which 32 were female heads of households with children. There were no households with heads over 65 below the poverty line. Total employment in the city in 1990 is projected to reach 13,000.

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Over the next five years Palm Desert will undoubtedly experience a substantial increase in low income housing needs resulting from the rapidly growing retail, service and resort hotel industries. Up to 1,200 new hotel rooms and 400,000 square feet of commercial space are projected to attract 2,100 new employees to the area of which 1,500 are likely to be paid low income wages.

Local restaurants, retailers, and hotels are already experiencing increasing difficulty in attracting and keeping reliable service employees. The lack of affordable worker housing has become a practical problem for employers and ultimately a real constraint on the growth and quality of the city's resort base industries. Low income employees will not relocate unless affordable housing is available. Reliance on other communities to provide this housing is contrary to the state housing laws fair share concept and will ultimately result in clogged highways as workers flood in and out of the city.

The private market has shown itself quite capable of meeting moderate and upper income rental housing needs. The production of lower and very low income housing will require significant assistance and involvement of the city, Redevelopment Agency, Riverside County Housing Authority, and the resort industries creating the demand.

C. HOUSING CHARACTERISTICS:

1. HOUSING MIX:

The following table compares the 1984 and 1989 Palm Desert housing mix:

	<u>Total Units</u>	<u>Single Family</u>	<u>2-4 Units</u>	<u>5 or More</u>	<u>Mobile Homes</u>
1984	12,304	9,150 (74%)	1,156 (9%)	1,202 (10%)	796 (6%)
1989	16,603	11,853 (71%)	1,586 (10%)	2,345 (14%)	841 (5%)

In 1984, 19% of the housing stock was comprised of multi-family rental units. Only 28 units had been constructed during the preceding four years. As a result of the city's Affordable High Density Planned Residential Program (AHDPR), 1573 multi-family rental units were constructed between 1984-1988; 37% of all units. An additional 800 units have been approved. Of the 1573 constructed, 180 are rent controlled for lower income households; 21 are rent controlled for moderate income

households. Eighty percent (80%) of the market unit rents fall within the moderate income standards.

2. HOUSING CONDITIONS:

Most of the housing in the City of Palm Desert has been constructed since 1960. Generally homes in even the oldest neighborhoods are less than 25 years old. While the general level of residential maintenance is quite good, isolated cases of deterioration have occurred. Surveys indicate up to 20 single family homes and 100 multi-family units need significant rehabilitation. In some cases the city has had to threaten condemnation to force landlords to maintain minimum health and safety standards. As will be described later in this element, the city's redevelopment agency in cooperation with the Riverside County Housing Authority is implementing programs to reverse the deterioration process and preserve quality housing.

3. OVERCROWDING:

Overcrowding is defined as dwellings with greater than 1.01 persons per room. A room is defined by the Uniform Building Code as a place usable for sleeping, eating or cooking. This excludes bathrooms, hallways and closets. For example a three bedroom, two bath home with a kitchen and combination dining room/living room would have five rooms. If it was inhabited by two adults and four children, a 1.2 ratio would qualify as overcrowded.

Projections for 1989 based upon the 1980 census identify 136 households (2%) with person per room ratios between 1.01 and 1.5, and 56 household (.8%) with ratios greater than 1.51.

Overcrowding is caused by a combination of shortages and high cost of appropriate housing. Families are forced to choose between small units or sharing a larger unit with another family.

While it may be desirable for each child to have his/her own bedroom, some degree of overcrowding is inevitable. Young families often take several years before they can achieve the one person per room ratio. Cases of severe overcrowding can lead to accelerated housing deterioration and corresponding negative impacts for surrounding properties and the neighborhood. There is some evidence that the incidence of overcrowding has increased since 1980 as a result of increased

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lower income employment associated with the Marriott hotel, the Town Center mall and general expansion of the city's resort economic base.

Although the city's housing programs have produced a substantial number of lower and moderate income one and two bedroom units, there has not been significant construction of lower income family housing and no units affordable by very low income households.

Programs in the element will attempt to expand housing opportunities for these two groups to find uncrowded quality housing within safe, clean neighborhoods.

4. VACANCY RATES:

The Federal Home Loan Bank Branch has estimated the 1988 combined vacancy rate to be 11.6%; 8.72% above the "ideal" 2.88% calculated by SCAG. Vacancy rates for units within the lower income range are less than 1%.

II. HOUSING NEEDS

The mandated objective of the Palm Desert Housing Element is the provision of quality, well designed housing within safe and attractive neighborhoods affordable by all segments of the community. The task of the implementation program shall be to resolve the conflict and trade-offs between affordability, design and density.

When the city incorporated there was great concern for what appeared to be unacceptably low quality development standards being enforced by the county. Zoning and design review standards were developed to insure quality neighborhoods. These standards succeeded in encouraging an abundant supply of housing, very high quality development, but also resulted in housing increasingly out of the reach of very low, low and moderate income households. This situation was further exaggerated by the high speculative housing market of the late 1970's. Through implementation of programs contained in the 1984 Housing Element these problems have begun to be addressed.

A. THE REGIONAL HOUSING NEEDS ASSESSMENT (RHNA) - THE FAIR SHARE CONCEPT:

The state housing law assigns the Southern California Association of Governments (SCAG) the responsibility for determining Palm Desert's existing housing needs and the city's fair share of the regional future needs. This analysis is contained in the Regional Housing Needs Assessment (RHNA). Existing need is a simple projection from the 1980 census of households paying more than 30% of their income on housing based upon the California Department of Finance population estimates for 1988 and adjusted to 1989. The future needs section is based upon SCAG's own Growth Management Plan. The state housing law "fair share concept" also requires the equalization of a jurisdiction's affordable housing percentage towards the regional average. The future needs section, therefore, includes an "impaction adjustment" which brings a jurisdiction percentage of future lower and very low income units 25% closer to the regional average. Palm Desert's current share is 32% compared to 40% for the region; a difference of 8%. The composition of the city's future affordable housing needs was therefore increased 2% to 34%.

The existing needs figures do not assume any construction of low income units during the 1980-88 period and can be reduced if affordable projects were built.

Through One Quail Place and San Tropez Villas apartment project development agreement's, 180 lower income units were constructed

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between 1984-1987. These units will be rent controlled through the year 2015 and 2017 respectively.

The adjusted RHNA is included below. Current need is 569 lower income (80% of medium household incomes) and 481 very low income (50% of medium household incomes) for a total of 1050. Future need has been set at 367 lower and 303 very low income. The numbers are not intended to be absolutely accurate calculations creating a "quota" the city is expected to achieve. It is merely an estimate of the general magnitude of need and serves as a goal for the design of local housing programs. Cities will be evaluated on how effectively available resources are employed towards the attainment of the RHNA targets.

REGIONAL HOUSING NEEDS ASSESSMENT

I. ADJUSTED EXISTING NEED*

<u>1989</u> <u>HOUSEHOLDS</u>	<u>LIHHS OVERPAYING FOR SHELTER</u>				<u>TOT-OWNER</u>
	<u>LIHHS</u>	<u>TOTAL</u>	<u>VERY LOW</u>	<u>LOW</u>	
8,546	2,518	1,050	481	569	380

<u>LIHH OVERPAYMENT BY TENURE AND INCOME</u>				
<u>VL-OWNER</u>	<u>LOW-OWNER</u>	<u>TOT-RENTER</u>	<u>VL-RENTER</u>	<u>LOW-RENTER</u>
147	233	669	335	334

II. FUTURE NEED - 1

<u>TOTAL</u>	<u>VL INC</u>	<u>LOW INC</u>	<u>MOD INC</u>	<u>HIGH INC</u>	<u>LOWER INC</u> <u>(%VL & L)</u>	<u>HIGHER INC</u> <u>(%MOD & UP)</u>
1,964	303	367	340	954	34.1%	65.9%

*Adjusted to reflect 1989 "GAP" year and reduced for 180 lower income units constructed in connection with One Quail Place and San Tropez Villas Affordable High Rent projects.

B. OWNERSHIP HOUSING:

The HUD income guidelines call for a maximum low income ownership unit selling price of \$65,000 based upon the monthly payment on a

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10.75% 30 year loan. The moderate income house price limit would approach \$90,000. No new projects have offered homes in this price range for at least five years.

The median price of existing Palm Desert housing in 1988 was \$130,267. A total of 16 single family homes and 21 condominiums are currently on the market (March, 1989) below the \$90,000 moderate income range. No new units have been constructed within the moderate range since 1984. In 1984, Mountain View Falls offered 100 two and three bedroom units between \$68,000 and \$72,000 as part of a 25% density bonus program.

While some opportunities remain in the resale market, the lack of new moderate income units will ultimately result in a diminishing availability as demand grows. The growth of low and moderate income employment will lead to an increasing need for family housing which is best served by single family units. During the 1984-89 period, the Palm Desert housing program implementation stressed multifamily construction which had lagged during the previous period. Through 1994, affordable family housing will receive greater emphasis.

C. RENTAL HOUSING:

When the city incorporated in 1973, one of the first tasks was to improve the overall quality of development through the raising of standards enforced by the county. Inadvertently, those new zoning standards combined with other more general economic factors to virtually halt multifamily rental construction. In 1984, 19% of the housing stock was comprised of multifamily units. Only 28 units had been built between 1980-84.

The implementation of the AHDPR zone contained in the 1984 Housing Element, lower interest rates and the use of tax-exempt bond financing led to the construction of 1573 rental units between 1984-1989 and the approval of 800 more. During the period, 37% of all units constructed were multifamily rentals. The new units include 180 lower income and 21 rent controlled moderate income units. The majority of the market rate units fall into the moderate range. Controlled lower income unit rents for new one and two bedrooms range from \$450 to \$550/month. Market rents range from \$500 to \$800/month. Current apartment vacancy rates average near five percent. This compares to 1.8% in 1984. Some of the large complexes experience as high as a 20% vacancy rate during the off-season summer months. Vacancy rates for lower income units are virtually zero.

New apartment construction over the last five years has satisfied the demands for moderate income units and has begun to address lower income needs.

The AHD program is limited in that lower income housing production requires strong demand for the 80% market units. If demand for moderate market units levels, then new projects will not be built. Lower income production ceases unless additional financial subsidies are included.

D. PRESERVING NEIGHBORHOOD QUALITY:

While design standards can produce very attractive new developments, they cannot always succeed in substantially improving older developed neighborhoods. Declining neighborhoods tend to discourage the investment of private capital thus reinforcing their decline. Although the substandard condition of certain areas results in depressed property values and lowered housing values, allowing continued decline is an unacceptable solution to the affordable housing problem. Slums result in a dangerous, ugly environment but do not guarantee affordable housing. In a tight housing market landlords will continue to be able to receive high rents even as quality declines.

The concept of redevelopment was specifically designed to break the cycle leading to the development of slums. Carefully planned public investment in the form of improved public facilities, and low interest rehabilitation loans will encourage private investment reversing the decline cycle.

To achieve the goal of quality neighborhoods and affordable housing requires the promotion of innovative designs which reduce the costs of construction while still providing a desirable residential environment. Because of high land costs, it will be necessary to provide some form of direct financial assistance to developers or households to achieve all our housing goals.

E. CONSTRAINTS:

1. GOVERNMENTAL:

a. Land Use:

During the city's first years, a shortage of vacant high density zoned property discouraged affordable multifamily development. This situation was corrected with the

creation of the AHDPR zone which established procedures and criteria for re-zoning up to 25 dwelling units/acre for projects containing 20% lower income units. Through 1988, 42 acres have been rezoned and 896 units constructed under the AHD program. In 1986 the Senior Overlay was created to provide similar incentives specifically for affordable senior housing.

Upzoning during the past four years of an additional 85 acres elsewhere throughout the city from medium to high density will permit an additional 1500 multifamily units. These rezoning programs have effectively eliminated land use restrictions as a constraint to the production of affordable housing.

Manufactured Housing Opportunities

Within the city there are currently four mobile home parks containing 703 spaces and a 120 acre mobile home subdivision containing 360 lots. The parks are at 100% capacity and the subdivision is 90% developed. An 86 acre 241 lot park is currently under construction. All mobile home facilities are specifically zoned for that use. In addition, the city is complying with Chapters 1571 and 1572 Statutes of 1988 permitting approved manufactured housing on permanent facilities in single family areas.

Parking

The zoning ordinance requires two parking spaces per apartment unit. Due to the desert's extreme heat, one space must be covered. Single family homes require a two car garage or carport. These requirements are based upon studies of automobile ownership and needs for guest parking.

Reductions have been granted for affordable projects when site geometry made full attainment impractical. The Senior Housing Overlay reduces parking to one space per unit for projects with an age 62 minimum and 1.25 for an age 55 minimum.

Senior Second Units

In 1983 the city adopted a Second Unit Senior Housing ordinance which permits one additional rental unit to be added to single family homes. It requires the unit to be incorporated into the main structures and requires the

total development to resemble one single family home. Consistent with our rental apartment standard an additional two parking spaces are required. Occupants must be 60 years of age or older. Through 1989 there has been only three applications for the program. All have been approved.

While the second unit program has not made a significant contribution, its lack of success has not constituted a major constraint on the production of rental senior housing. The Senior Overlay ordinance and the availability of vacant land has provided ample opportunities for construction of senior housing.

b. Building Codes and Development Standards:

A goal of this element is the development and maintenance of high quality housing and residential neighborhoods. While Palm Desert's standards are high, developers are given a great deal of flexibility in choosing the means by which the standards can be achieved. Analysis of project alternatives describing lowered levels of design quality and amenities show only minimal decreases in monthly housing costs at the expense of significant reductions in overall quality.

The city uses the Uniform Building Code with some modifications relating to combustible roof materials and aluminum electrical wiring. It is estimated that these higher standards increase the initial cost of a typical home by \$300. The increased level of safety and the reduction of long term maintenance costs offset the initial extra costs. Applicants have the opportunity to provide engineered cost saving alternatives which meet code specifications. Modular and prefabricated building systems have been used extensively. Quality construction, while initially appearing more expensive, results in lower long-term housing costs.

c. Development Fees:

City of Palm Desert fees are designed to cover actual costs of processing applications and the extension of urban services to the proposed development. A typical 1500 square foot home will include \$8,693 in fees of which only \$1,100 is for design and building plan review. The

remainder is for public improvements to serve the development. Utility hook-up and school fees account for more than 50% and are not within the control of the city.

Development fees within Palm Desert are comparable to those charges within other jurisdictions throughout the Coachella Valley. Although they constitute a substantial constraint, accounting for ten percent of a modest home's cost, fees are based upon real public costs which must be paid by someone. The city's commitment to affordable housing recognizes that financial assistance will be required to reduce the overall cost of housing which includes fees.

COACHELLA VALLEY SURVEY OF DEVELOPMENT FEES
1500 SQUARE FOOT SINGLE FAMILY HOMES

Palm Springs	\$9,126
Indian Wells	8,900
Palm Desert	8,693
Riverside County	8,150
Desert Hot Springs	7,935
La Quinta	7,630
Rancho Mirage	7,565
Cathedral City	7,350
Indio	7,338
Coachella	7,040

d. Permit Processing Procedures:

The city employs a streamlined processing procedure which consolidates hearings and reviews and significantly reduces administrative delays. A single family home receives design review by the department of community development on the day it is submitted and can be immediately transmitted to the department of building and safety for plan check. Depending upon work load, permits are issued within four weeks of submittal.

Major developments as large as 1,000 units can complete the public hearing review within three months and can often begin construction within six months of initial application.

2. NON-GOVERNMENTAL CONSTRAINTS:

a. Land Costs:

Residential land costs vary by location, parcel size, and availability of urban services. Individual single family lots range from \$20,000 to \$250,000. Large unimproved parcels range from \$50,000 per acre north of Country Club Drive to over \$200,000 per acre south of Highway 111. Per unit multifamily land costs range from 5,000 to \$12,000. These price factors are fairly uniform between Palm Springs and Indian Wells. Prices are somewhat lower toward Indio.

The impact of rising land costs can be mitigated to a degree by raising densities. While land may account for 30% of the cost of a single family home at four dwelling units per acre, it can be reduced to 10% in a 20 unit per acre project. Increasing densities can itself increase speculative pressure based upon expectations of more profitable high density development. It is therefore important to provide a mechanism to prevent this speculation from inflating higher density parcels so as to preclude affordable housing. By tying high density zoning to low income affordable performance standards, the AHDPR program and the senior overlay limits this type of speculation.

b. Construction Costs:

Palm Desert's construction costs average \$67 per square foot, including land, all phases of construction, fees and financing, depending upon project size, density, and quality. These costs are fairly uniform throughout the Coachella Valley. It is anticipated that construction costs will continue to rise with inflation. The table below analyzes and compares the various components of single family and apartment costs.

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TYPICAL COSTS OF CONSTRUCTION

	<u>1500 SQ. FT. SINGLE FAMILY</u>	<u>900 SQ. FT. APARTMENT</u>
Land	\$ 25,000	\$10,000
Architecture/Engineering	4,260	2,556
Onsite Improvements	7,200	4,320
Offsite Improvements	1,440	864
Unit Construction	37,830	22,698
Government & Utility Fees	9,000	5,400
Financing	<u>16,245</u>	<u>9,747</u>
Total	\$100,975	\$55,588

c. Financing:

The most profound constraint on both the supply and affordability of housing is the cost of mortgage financing. As interest rates rise above the 13% level, even the most modest homes become unaffordable for moderate income households and builders cease construction.

Monthly payments including property taxes and insurance on a \$90,000 moderate income home with a \$80,000 30 year mortgage at 10% is \$802. This rises to \$1016 at 13 1/2%. Based upon the 30% of income criteria used by lenders and HUD for loan qualification, a four person household earning \$37,080 (the moderate income limit) could afford a house payment (tax and insurance) of \$926.00. The moderate income household easily qualifying at 10% begins to have problems at 12% and is likely to be rejected at 13 1/2%.

A survey of local financial institutions indicate that loans are available at rates competitive with other areas in Southern California. Loans for the purchase or rehabilitation of rental units had been restricted by the fact that many older projects built under county standards are legal non-conforming under current city zoning. Banks were hesitant to lend on a ten unit property if only six units could be replaced in case of a fire. In response to this problem the Certificate of Conformance program was created (see program section) and this constraint removed.

Local governments have little ability to significantly remove this constraint since it involves national monetary policy. The use of mortgage interest subsidies and tax exempt bond financing can lower costs enough to allow marginal home buyers to qualify or enable rental projects

to offer lower income rents. Since 1984 over \$40,000,000 in tax exempt bonds have been sold to finance multifamily construction in Palm Desert. Over the last three years interest rates have hovered around the 10% level, greatly facilitating financing of affordable units.

3. Constraint Summary:

While each individual constraint factor does not preclude the construction of affordable housing, their combination puts the bare cost of both ownership and rental housing significantly above low income levels. The city's housing program will be addressing these constraints through density bonuses, inclusionary zoning, low interest tax exempt bond financing, public land purchase, self-help housing and direct rental subsidies.

F. SPECIAL NEEDS:

1. ELDERLY:

The desert area has traditionally been a retirement destination. In 1989, 20% of Palm Desert residents (3,890) and 30% of households (2,564) had members over age 65. In 1980 there were no families headed by individuals over 65 living below the poverty line. Sixty individual seniors were living below the poverty line. In 1989 the incidence of elderly poverty may have risen to 80 individuals. By 1995 an additional 2,000 individuals will have reached retirement age. As part of the general affordable housing problem, all but the most affluent elderly have been frozen out of the Palm Desert housing market. The type of housing available is not ideally suited to many segments of the elderly population. Many elderly households no longer need or desire the two or three bedroom home designed for a growing family. Low density resort condominiums provide more suitable accommodations but are generally the most expensive housing in the city. These projects tend to average only 20% permanent occupancy leading to social isolation of the scattered less active retired elderly.

Different forms of elderly housing have been developed which enhance the opportunity for social interaction and bridge the gap between the isolation of traditional housing arrangements and the rest homes. These projects provide small apartments, common dining facilities, organized social functions and limited medical care. As will be discussed in the program section, the

city has created special incentives for the production of a wide variety of senior housing.

2. HANDICAPPED:

The 1980 census identified 576 individuals with varying degrees of disability. In 1989 this figure is projected to have risen to 770. Ninety-five percent of existing rentals were built prior to any requirements for handicapped facilities. Implementation of Title 24 C.A.C., Section 2-1213 a,b insures that all rental projects provide units specifically designed for handicapped residents.

3. FEMALE HEADS OF HOUSEHOLDS:

The incidence of female headed household with children identified by the 1980 census was 156 or 3.5% of which 32 were below the poverty line. In 1989 female headed households are estimated to have risen to 208 with 43 below the poverty line. The housing needs of this group will be addressed by programs directed to the more general low/moderate income category.

4. LARGE FAMILIES:

Only 111 households in 1980 were larger than six members. This statistic, in addition to the low incidence of severe overcrowding, .8% would indicate that the present unit sizes are adequate. As the existing younger population matures there will be a growing need for family housing. Current 1989 estimate for larger families is 148.

5. FARM WORKER HOUSING:

In 1980, 277 Palm Desert residents were employed in agriculture. There are presently no large scale agricultural operations within the city. Agricultural activity has steadily declined in the upper Coachella Valley as the date industry has moved toward the Thermal area. Other than for farm management occupations, agricultural employment will show a corresponding decline, therefore, no special farm worker housing programs are proposed.

6. *THE HOMELESS:

The City of Palm Desert has yet to experience a significant homeless problem. Sheriff's reports of homeless to be less than 5 individual at any one time. Most are moving through the area or are living in campsites up in the canyons. The intense long, dry summer heat with daytime temperatures frequently over 112 degrees tends to discourage year-round outdoor living. The extremely low unemployment rate and wide availability of entry level jobs provides Palm Desert unique opportunities to address the economic homeless problems.

III. THE PROGRAM

The previous discussion focused on the obstacles to the attainment of the goal of quality and affordable housing. The efforts to solve these problems must be evaluated according to how well the city utilizes all the available fiscal and planning tools. The following discussion will analyze these tools evaluating their effectiveness and costs.

The solutions will fall into two basic categories: 1) Direct financial aide programs to reduce or defer costs of housing or neighborhood quality improvements; 2) Continued regulatory reforms providing incentives for the production of housing and the maintenance of neighborhood quality. While regulatory reforms do not involve the expenditure of public funds, direct assistance will require significant economic resources. Fortunately, the economic growth which is partially responsible for the increased housing demands will also generate significant new revenues which can finance new housing programs.

The following program descriptions shall not be construed to limit or preclude the proposal, approval or implementation of alternative strategies designed to achieve the goals identified in this housing element.

A. NEIGHBORHOOD QUALITY:

1. PUBLIC INFRASTRUCTURE:

Within new projects, our review process insures development quality. These standards are less effective in improving the quality of existing neighborhoods. Code enforcement programs can abate the worse cases of neglect but too heavy a reliance on a punitive strategy is more likely to create community ill will. Positive financial incentives provide more effective tools for significant improvement.

The first phase of the city's neighborhood program was the completion of all remaining residential public improvements. The city's redevelopment agency is currently completing construction of all remaining residential road, curb and gutter, and sewer improvements through Palma Village Assessment District No. 3. Redevelopment agency and Coachella Water District contribution of \$8,780,816 account for 59 percent of the project costs.

The completion of these improvements will begin to change property owners' and residents' perceptions concerning the direction of their neighborhood and create a new positive image receptive to new investment.

2. REHABILITATION:

a. Financial Assistance:

With the completion of phase I, phase II of the program will be initiated with the creation of a \$250,000 loan fund from the redevelopment agency 20 percent housing funds for the purpose of single and multifamily rehabilitation. Loans up to \$15,000 per unit will be provided to eligible low and moderate income households and multifamily property owners who agree to participate in a lower income controlled rental program. The loans could be deferred until sale or a repayment schedule established based upon a household's economic resources. The loan amount would be determined by the magnitude of work required to achieve a reasonable standard. For some units it may mean only yard clean up and exterior paint. Others may require major renovation or reconstruction. While the loan program will not reach all households, the improvements will create a positive neighborhood feeling encouraging property owners to embark on their own privately funded rehabilitation efforts.

b. Certificate of Conformance Program:

When the city incorporated in 1973 and adopted a new zoning map, up to 500 multifamily units became legal nonconforming due to densities in excess of the new designations. Many of these older units have experienced gradual deterioration due to deferred maintenance. While legal nonconforming status permits the continued existence of the units, upon substantial destruction only the currently zoned density could be replaced. When lenders become aware of this situation, they often refuse approval of loans for purchase or rehabilitation. Ultimately this withdrawal of financing would lead to accelerated deterioration of these units. To address this problem the Certificate of Conformance program was created. The program provides a process by which nonconforming multifamily properties can achieve conforming status and gain a vested right in the existing unit density. The property owner is required to propose and implement a rehabilitation program which brings the project up to current aesthetic design standards and corrects all health and safety violations. The owner must agree to maintain the project consistent with its conditions at the completion of the rehabilitation. Through 1989, 113 units in seven projects have participated in the program. It is

anticipated that through 1994 an additional 100 units will be rehabilitated as a result of the certificate of conformance incentives.

c. Public Acquisition and Rehabilitation:

For certain cases, the magnitude of deterioration exceeds the financial ability or desire of an owner to correct. In these cases the city in cooperation with the Riverside County Housing Authority may step in, purchase, rehabilitate and manage the property for lower income households.

This strategy was employed for the 60 unit Town Center Apartments which was purchased by the Housing Authority and is undergoing general rehabilitation, new off-street parking development and landscaping.

B. RESIDENTIAL CONSERVATION:

1. ZONING:

Historically, the City of Palm Desert has not experienced any significant conversion of residential to non-residential uses. The General Plan Land Use Element and Zoning Ordinance give highest priority to the protection of existing residential neighborhoods. The neighborhood quality program will be designed to provide property owners with incentives for the conservation of the low/moderate income housing stock.

2. MOBILE HOME PARK PROTECTION:

There are currently four mobile home parks within the city totaling 697 spaces. All four parks are at 100% occupancy. Due to the shortage of new spaces in the vicinity and the nearly prohibitive cost of moving, unit owners had become captive renters with very little ability to respond to space rent increases. The city had instituted a rent control system in an attempt to preserve the affordable nature of the mobile home stock, but found itself in the middle of a continuous battle between park owners and residents. There was also some fears of property owners abandoning the mobile home use altogether as raw land prices have escalated.

HOUSING ELEMENT

The city in conjunction with the Riverside County Housing Authority has instituted a program of public acquisition and management of the parks to both preserve their affordable rents and guarantee continued existence.

A joint project between the RDA and the Riverside County Housing Authority will result in the public acquisition of the Indian Springs Mobile Home Park and the preservation of 90 low and moderate income units.

3. FEDERAL HOUSING SUBSIDY PROGRAMS:

Through Section 8, 58 units are being conserved at low income rents.

C. REDUCING COSTS AND PRICES OF NEW CONSTRUCTION:

1. REMOVAL OF GOVERNMENT CONSTRAINTS, DENSITY BONUSES AND DEVELOPMENT STANDARDS REFORM:

Over the last four years, the City of Palm Desert has made extensive use of inclusionary zoning density bonuses and tax-exempt bond financing to dramatically increase the availability of low and moderate income housing.

The Affordable High Density Program (AHD) which provides densities up to 25 units per acre with 20% lower income controlled units has produced 180 lower income units and 700 moderate income units with an equivalent annual rent subsidy of \$324,000.

2. RENTAL HOUSING:

While the AHD program and tax exempt bond financing will continue to be made available, its ability to produce lower income units is dependent upon the strong demand for the 80% moderate income units. Since moderate demand appears to be leveling off while demand for lower income units grow, density bonuses and low interest financing will not produce adequate supplies of low income units and never were capable of very low income housing production.

To address this growing imbalance, the city and Riverside County Housing Authority has initiated a new program of publicly financed and managed very low, low and moderate income housing

to meet the specific needs of the city's resort industry and service employees.

The city has leveraged \$1,460,000 of redevelopment funds to sell \$67,000,000 in housing bonds to finance various projects of which the largest will be the construction of 1,100 units containing 366 very low income units, 366 lower income units and 366 moderate income units. The rental schedule will require an additional annual \$2.48 million rent subsidy which would be generated from Redevelopment Project Area Nos. 1 and 2 and commercial developer fees. Rental priority shall be given to current Palm Desert employees. The program may take the form of one or several different projects at different sites and will be constructed over a five year period. The project will contain a park and be located close to resort employment and commercial facilities.

3. OWNERSHIP HOUSING:

a. Mortgage Assistance:

To assist first time moderate income home buyers the city with the Riverside County has initiated a low interest mortgage program. The program will be implemented with a 56 unit condominium project presently under construction within the city. The program will provide loans up to 3% below market rates, substantially expanding the opportunities for moderate income households to enter the ownership market.

b. Self-Help Housing:

To further expand the opportunities for low and moderate income households to enter the ownership housing market, a pilot self-help program will be initiated by the city with the Coachella Valley Housing Coalition (CVHC) in cooperation with the California State Self-Help Housing Program (CSHHP) California Department of Housing and Community Development, California Housing Finance Agency's and private lenders.

In self-help housing families are trained to construct a substantial portion of their own home. Through the sweat equity, housing cost can be reduced 20%. In addition CSHHP provides subsidies up to \$15,000 per house in the form of deferred loans which in time become grants. The city's Redevelopment Agency will be providing 12 lots at below

market cost and a total equivalent subsidy of \$25,000/unit. If it is successful, the program will be expanded.

c. **Manufactured Housing:**

The city is promoting the construction of lower cost manufactured housing through the approval of planned manufactured housing parks and compliance with state laws prohibiting discrimination against the placement of off-site manufactured housing on single family lots.

4. **SENIOR HOUSING:**

The Senior Overlay Program provides density bonuses up to an equivalent of 22 units per acre with inclusionary provisions for very low, low and moderate income units. Developers also have been given an option through development agreements to pay a fee in-lieu of providing on-site affordable housing.

Through January, 1989, the program has resulted in the construction of 257 congregate care units and 13 senior apartments. An additional 243 congregate care and 176 senior apartments have been approved. These projects will produce 8 very low income and 15 lower income units. In addition, an in-lieu fee fund of \$703,900 will be generated. The city has used \$535,000 of this fund to purchase a three-acre site adjacent to the Joslyn Cove Senior Center and has executed an agreement with a developer to construct 60 lower and very low income senior apartments to be completed by 1990.

D. **ENERGY CONSERVATION:**

As a result of its hot desert climate, the primary residential energy conservation effort involves the reduction of solar heat gain during the six to eight air conditioned months. The implementation of Title 24 energy requirements of the building code has significantly reduced energy consumption in new structures. In older neighborhoods, energy saving improvements will be promoted through the neighborhood quality rehabilitation program. With the increasing dominance of projects with large common facilities, the economics of solar water heating and co-generation technologies are enhanced. The city will promote and encourage the use of appropriate energy saving technologies through the architectural review process.

E. **EQUAL HOUSING OPPORTUNITIES:**

The city promotes equal housing opportunities by referring inquiries concerning illegal discrimination to the following local, state, and federal fair housing agencies:

Desert Association for Residential Equality
P.O. Box 2166
Palm Springs, CA 92263
(619) 322-1559

State Department of Fair Employment and Housing
322 West 1st Street, Room 2126
Los Angeles, CA 90027
(213) 408-7464

U.S. Department of Housing and Urban Development
2500 Wilshire Boulevard
Los Angeles, CA 90027
(213) 688-5951

All projects receiving a density bonus enter into a development which prohibits illegal discrimination. Violation of this provision will be referred to the Riverside County District Attorney for prosecution.

F. **HOMELESSNESS:**

As was discussed in the needs section, the City of Palm Desert does not experience a significant homeless problem. No more than five individuals have been observed at any one time. Typically these individuals are traveling through the area or have some sort of semi-permanent campsite in the canyons.

There does not appear to be a need for a shelter in Palm Desert at this time. Shelter facilities are provided in Coachella Valley through the Catholic Charities/Riverside County Housing Authority. Nightingale Manor in Palm Springs includes 15 units and can accommodate both families and individuals. Half the rooms have kitchens and all have facilities for food storage. Currently the shelter is not providing services to any former Palm Desert residents.

An analysis conducted by the Coachella Valley Association of Governments determined that Palm Desert's fair share of the shelter's costs to be \$10,000.

HOUSING ELEMENT

Until such time as a shelter is needed in Palm Desert, the city shall make an annual contribution of \$10,000 to the Nightingale Manor. A shelter location has been designated in the city's northern area and could be developed in connection with the Employee Housing program. The ultimate solution to homelessness is the re-establishment of individual and family economic independence. A program will be developed in association with the city's employee housing program/County Housing Authority and County Department of Social Services to provide employment and permanent standard housing.

FIVE YEAR PROGRAM SUMMARY

I. NEIGHBORHOOD QUALITY. PUBLIC INFRASTRUCTURE REHABILITATION AND CONSERVATION.

A. PROGRAM: Completion of all remaining residential infrastructure.

Scope: 2,373 units

Cost: \$15,000,000

Source: Redevelopment Agency, Tax Assessments

Agency: Redevelopment Agency/Public Works

Completion Date: July, 1989

B. PROGRAM. Residential Rehabilitation Loans.

Scope: 200 units

Estimated Cost: \$250,000

Source: Redevelopment Agency

Agency: Redevelopment Agency/Building and Safety

C. PROGRAM. Certificate of Conformance.

Scope: Estimate 100 units

Estimated Cost: None

Agency: Community Development/Building and Safety

D. PROGRAM. Town Center Apartments.

Scope: Rehabilitation of 64 low income apartments

Estimated Cost: \$2,500,000

Agency: Redevelopment Agency, Department of Building and Safety, Riverside County Housing Authority

HOUSING ELEMENT

E. PROGRAM. Mobile Home Park Conservation.

Scope: 191 units
Cost: \$6,400,000
Agency: Redevelopment, Riverside County Housing Authority

II. REDUCED COST AND PRICE FOR NEW CONSTRUCTION.

A. PROGRAM. Affordable High Density Rental Employee Housing.

Scope: 366 very low income units
366 lower income units
366 moderate income units
1,100 Total Units
Cost: Construction \$60,000,000
Annual Subsidy \$2,480,000
Source: Redevelopment Agency, Riverside County Housing Authority, Commercial Development Housing Mitigation Fees
Agency: Community Services, Redevelopment Agency, Public Works, Building and Safety, Riverside County Housing Authority

B. PROGRAM. Ownership Mortgage Assistance.

Scope: 56 units eligible for low interest loans
Cost: \$5,000,000
Source: Riverside County
Agency: Riverside County

C. PROGRAM. Self-Help Housing.

Scope: 12 assisted single family homes
Cost: \$320,000

HOUSING ELEMENT

Source: Redevelopment Agency, California Self-Help Housing Program, HCD, California Housing Finance Agency

Agency: Coachella Valley Housing Coalition, Redevelopment Agency, Department of Building and Safety

D. PROGRAM. Manufactured Housing.

Scope: 241 units within new parks and implementation of state laws against discrimination within single family zones

Cost: None

Agency: Community Development

E. PROGRAM. Senior Housing Overlay.

Scope: 600 congregate care units
50 very low income apartments
100 lower income apartments
150 moderate income apartments

Cost: \$1,000,000

Source: Private developer inclusionary requirements and in-lieu fees

Agency: Community Development

F. PROGRAM. Senior Second Unit.

Scope: Zoning standards permitting second units on single family lots rentable to residents over 60 years of age

Cost: None

Agency: Community Development

G. PROGRAM. Homelessness.

Scope: Financial assistance to valley shelter

HOUSING ELEMENT

Cost: \$10,000
Source: Redevelopment Agency
Agency: Riverside County Housing Authority/Catholic Charities

H. PROGRAM. Federal Section 8 Rent Subsidies.

Scope: 58 assisted households
Cost: unknown
Agency: U.S. Department of Housing and Urban Development

III. OVERALL OBJECTIVES FOR MAXIMUM NUMBERS OF HOUSING UNITS CONSTRUCTED, REHABILITATED AND CONSERVED.

A. CONSTRUCTED:

1. City programs	2,309 units
2. Other market construction	1,500 units
	<u>3,809 units</u>

B. REHABILITATED: 364 units

C. CONSERVED: 313 units

RESIDENTIAL LAND INVENTORY AND SITE CRITERIA
FOR
HIGH DENSITY LOWER AND MODERATE INCOME HOUSING PROJECTS

The City of Palm Desert contains approximately 3700 vacant residentially zoned acres. Of this area, 3200 acres are presently zoned at densities of five dwelling units per acre or less, with the balance ranging from 10 to 17 d.u./ac. Urban services are readily available in all areas. Sufficient water, sewer, and energy capacity exists to serve these areas.

Based upon the cost of land and construction in the Palm Desert area, it is generally recognized that for apartments to provide lower income rents, densities between 15-25 d.u./a.c. are required. Moderate income ownership projects need densities between 7 d.u./a.c. and 15 d.u./a.c. The City of Palm Desert Zoning Ordinance provides a mechanism by which these densities can be achieved. Projects which include at least 20 percent lower income units can receive densities up to 25 d.u./a.c. These programs are in addition to projects built pursuant to Government Code Section 65915, which provides for a 25% density bonus for low or moderate income housing. Since the density bonus programs are implemented through development agreements which are tied to low and moderate income performance standards, speculation prior to rezoning is discouraged.

Depending on general economic and interest rate fluctuations, approximately 5,000 units are projected to be built in Palm Desert within the next five years. These will include 52% upper price low density units, 30% moderate, 10% lower income units, and 8% very low income units. The lower density projects will use 800 acres, while the higher density moderate and lower income projects will occupy 250 acres. These proportions will provide adequate sites for affordable housing while maintaining the overall character of Palm Desert as a low density affluent community.

In allocating prospective high density sites throughout the city, the first consideration is to avoid excessive concentration. To achieve this, properties are dispersed throughout the city. Potential site areas have been identified on the High Density Affordable Housing Map based upon projected public infrastructure capacities and existing neighborhood character.

Final site selection and project evaluation will be based upon the following criteria:

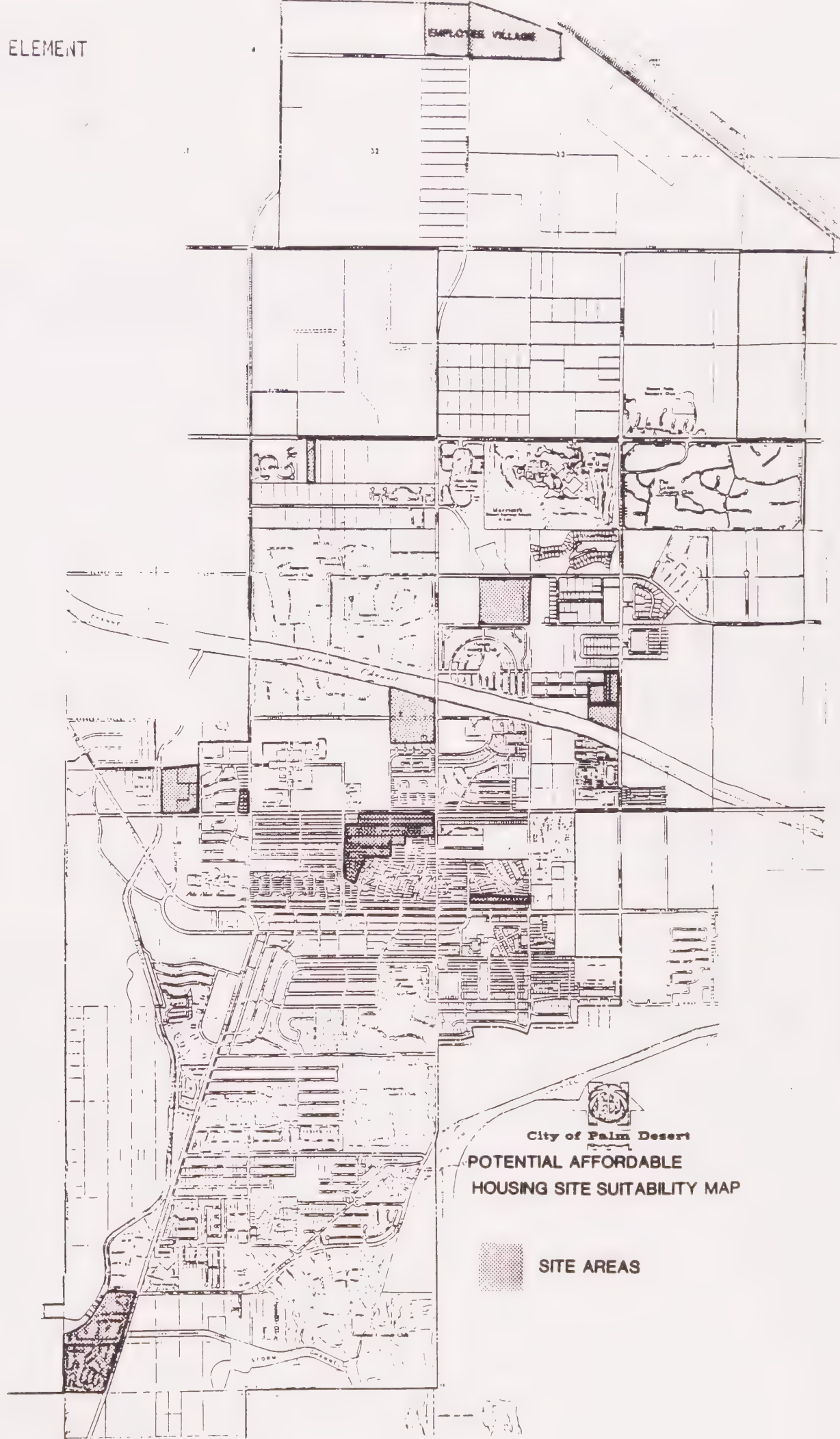
1. Adequate service capacity.
2. Direct access to major thoroughfares or arterials required for any project over 50 units.
3. Compatibility with surrounding land uses.
4. Close proximity to commercial services.
5. Overall high quality of design.

HOUSING ELEMENT

6. Contribution to the attainment of low and moderate income or other special housing goals.

The Potential Affordable Housing Site Suitability Map will become an addendum to the Land Use Map. Projects in areas designated on the suitability map which meet the review criteria may be judged to be consistent with the General Plan. Areas not designated will require an amendment of this map to achieve consistency. Once the program goals discussed in the implementation section of this element are achieved, an applicant will have to demonstrate a compelling need for more high density development in order to qualify for a density bonus program.

HOUSING ELEMENT



ANNUAL REVIEW

This housing element articulates policies and programs which will determine the direction the housing development will take over the next five years. Each year the city shall review these policies and programs to evaluate their validity and effectiveness, and to make necessary adjustments.

ENVIRONMENTAL IMPACTS

The programs described in the housing element will have generally positive environmental and social economic impacts. Potential negative impacts of specific projects will be mitigated by existing mechanisms incorporated into the development review process. Although indirectly growth inducing, programs are designed to enhance residential environmental quality, rectify the existing jobs/housing imbalance and provide additional affordable housing to meet the needs generated by economic growth.

I. NATURAL ENVIRONMENTAL IMPACTS:

While the development of housing unavoidably alters the natural desert environment, a system of development fees is being implemented to purchase and preserve 18 to 25 square miles of prime desert habitat. This area encompasses the full spectrum of desert ecosystems and includes the critical habitats of the endangered Coachella Valley Fringed-Toed Lizard and other rare plant and animal species. The Coachella Valley Fringe-Toed Lizard Habitat Conservation Program required a \$600/acre mitigation fee for all developments within the historic habitat. These funds are being used to create a 28 square mile preserve for the lizard and other desert species.

The proposed siting of high density affordable housing near employment and commercial centers will shorten commuting distances, thus reducing fuel consumption and auto emissions. The implementation of the energy saving requirements of Title 24 of the building code, plus standards contained within the architectural review process, will serve to reduce consumption of limited natural resources.

II. PUBLIC SERVICES:

Impacts on schools generated by residential development will be mitigated through a \$1.50 square foot school impact fee. Other development fees and special assessments will finance expanded police, fire and paramedic services.

New developments are required to construct substantial recreation facilities on site. In addition, subdivisions must dedicate land or pay fees for expanded public recreation.

REVIEW OF PAST HOUSING ELEMENT IMPLEMENTATION

The 1984 Housing Element set forth a large list of ambitious programs to address the city's growing housing needs. Although not all goals were achieved, effective implementation of a substantial number of programs have significantly improved neighborhood quality and expanded affordable housing opportunities. The residential infrastructure program has succeeded in providing equal urban residential services throughout the city. The AHD, Senior Overlay, and Palma Village Specific Plan programs have achieved the city's goal for multifamily construction, senior housing, and neighborhood revitalization. Constraints of finance and administration have caused the city to re-evaluate some programs and design alternative approaches to solving the affordable problem. The city views the continued pursuit of the goals originally outlined in 1984 as vital to sustaining the city's economic prosperity and overall quality of life.

1984-1989 FIVE YEAR PROGRAM REVIEW

I. NEIGHBORHOOD QUALITY:

- A. Goal. Loan fund for completion of curb and gutters for one square mile area.

Implementation. Through Palma Village Assessment District No. 3 full public improvements, curbs, gutters, and sewers are presently being completed (see page 14).

- B. Goal. Initiation of Specific Plans in areas targeted for Redevelopment Programs.

Implementation. Completion of Palma Village Specific Plan in 1985 setting redevelopment and housing priorities for city's largest low/moderate income housing area.

- C. Goal. Rehabilitation loans.

Implementation. Staff concentration on programs B and C delayed development of the rehab loan program to 1989-90 budget. Implementation will begin Fall '89.

- D. Goal. Loan program to encourage purchase of single family units by occupants.

Implementation. Funding requirements of goal A prevented simultaneous implementation of the loan program. Subsequently, the city was approached by the Coachella Valley Housing Coalition to participate in a Self Help Housing Program (see page 18 3. a.). Due to the substantial costs reductions achieved, the self-help program has replaced the original mortgage assistance plan. A mortgage assistance plan has been approved for a 56 unit condominium project.

II. COST AND PRICE REDUCTION OF NEW CONSTRUCTION:

- A. Goal. Density bonuses to create 300 low income units, 900 moderate income units.

Implementation. Through the AHDPR program 896 units were built including 180 rent controlled low income units. The balance (716) would qualify as moderate income units. An additional 612 units have been approved including 60 lower income units. Under Government Code Section 65915, 100 moderate income condominiums and 21 apartments were constructed.

Both the program goals and implementation have proved to be reasonably related to what can be achieved over a five year period. The program fell short of the lower income goal due to its dependence on moderate income demand and construction. The new element places greater emphasis on direct rental subsidies to achieve program goals.

- B. Program Goal. Financial assistance for 170 units.

Implementation. Funding and staff commitments for assessment district no. 3 delayed implementation of this program. This program has been substantially expanded (see program II A) and now forms the core of the five year plan.

- C. Goal. Zoning for manufactured housing - 400 acres - 2000 lots.

Implementation. The city has maintained the existing 400 acres of manufactured housing and rezoned an additional 86 acres in connection with the construction of a new 241 lot mobile home park.

The new legislation involving treatment of manufactured housing permits their location in all R-1 zones.

- D. Program Goal. Zoning Ordinance amendments to facilitate senior housing - 500 units.

Implementation. In 1985 the city created the Senior Housing Overlay which provides density bonuses and special development standards tailored to senior projects. The program has resulted in the construction of 257 congregate care and 13 senior apartments. An additional 243 congregate care and 176 apartments have been approved. These projects will include eight very low income and 15 lower income units. In-lieu fees of \$460,900 have been collected to subsidize a new 60 unit all low and very low income senior project. The Senior Overlay has succeeded in generating a great deal of activity. Like the AHDPR program, lower income production is tied to the demand for market units. Absorption rates of the new projects are being studied to determine the needs and nature of future projects.

PUBLIC PARTICIPATION

Draft copies of this element were made available to and comments solicited from the Joslyn Cove Senior Center, Coachella Valley Housing Coalition and from the public in general through the public library. Public notices for planning commission and city council hearings were published in local newspapers and posted at prominent locations throughout the city.

DEPARTMENT OF HOUSING AND COMMUNITY DEVELOPMENT
Housing Policy Development
Division
1800 Third Street, Room 430
P.O. Box 952053
Sacramento, CA 94252-2053
(916) 323-3176



October 3, 1989

Mr. Bruce Altman
City Manager
City of Palm Desert
73-510 Fred Waring Drive
Palm Desert, CA 92260

Dear Mr. Altman:

RE: Review of Palm Desert's Draft Housing Element Amendment

Thank you for submitting Palm Desert's draft housing element amendment September 5, 1989. As you know, we are required to review draft housing element amendments and report our findings to the locality (Government Code Section 65585 (b)).

Palm Desert's housing element is a well-written and comprehensive document, and establishes an ambitious schedule of program actions. In our opinion, however, the revision described in the following paragraph is needed to bring the element into compliance with State housing element law (Article 10.6 of the Government Code). Identified concerns were reviewed with Philip Drell, Senior Planner, in a telephone conversation on September 25, 1989. Following the recommended change, we refer to the applicable provision of the Government Code.

The City has set projected program unit goals, but does not establish overall quantified objectives for the maximum number of housing units that can be constructed, rehabilitated, and conserved within the element's planning period (Section 65583(b)). Overall objectives are significant because they include projected private market activity as well as City program goals.

We hope our comments are helpful to the City. If you have any questions about our comments, please contact Mario Angel of our staff at (916) 445-3485.

Mr. Bruce Altman
Page Two

In accordance with their requests according to the Public Information Act, we are forwarding a copy of this letter to the individuals listed below.

Sincerely,

A handwritten signature in dark ink, appearing to read "Nancy J. Javor", with a long horizontal flourish extending to the right.

Nancy J. Javor, Chief
Division of Housing Policy
Development

NJJ:MA:bt

cc: Philip Drell, Senior Planner, City of Palm Desert
Kathleen Mikkelsen, Deputy Attorney General
Bob Cervantes, Governor's Office of Planning and Research
Richard Lyon, California Building Industry Association
Kerry Harrington Morrison, California Association of Realtors
Marc Brown, California Rural Legal Assistance Foundation
Christine D. Reed, Building Industry Association

POPULATION

HOUSING UNITS

PERSON

CITY	TOTAL	HOUSE-HOLD	GROUP QUARTER	TOTAL	- SINGLE DETACHED	FAMILY ATTACHED	- MULTI-FAMILY - 2 TO 4	5 PLUS	MOBILE HOMES	OCCUPIED	% VACANT	PER HOUSE-HOLD
BANNING	19152	18976	176	7969	5298	300	334	912	1125	7178	9.93	2.644
BEAUMONT	9156	9015	141	3678	2315	139	257	610	357	3310	10.01	2.724
BLYTHE	8153	7950	203	2783	1917	73	231	502	60	2596	6.72	3.062
CATHEDRAL CITY	29052	29047	5	12894	5623	1858	1625	1100	2688	10338	19.82	2.810
COACHELLA	14535	14495	40	3291	1769	238	523	532	229	3254	1.12	4.455
CORONA	61035	60608	427	21305	13420	1356	1299	4309	921	19593	8.04	3.093
DESERT HOT SPRINGS	10633	10545	88	5346	2831	121	834	1252	308	4363	18.39	2.417
HEMET	33334	32750	584	18106	7597	1433	1536	3002	4538	16407	9.38	1.996
INDIAN WELLS	2593	2593	0	3220	1501	736	639	339	5	1135	64.75	2.285
INDIO	34277	34059	218	13516	5023	599	1082	4864	1948	10950	18.98	3.110
LAKE ELSINORE	14968	14966	2	6307	3335	268	838	1461	405	5424	14.00	2.759
LA QUINTA	10201	10201	0	4917	3230	1133	144	178	232	3389	31.08	3.010
MORENO VALLEY	101289	101270	19	32173	27191	499	1098	2203	1182	31221	2.96	3.244
MURCO	25219	20295	4924	5855	5552	60	84	113	46	5702	2.61	3.559
PALM DESERT	19454	19442	12	16603	5780	6051	1586	2345	841	8546	48.53	2.275
PALM SPRINGS	31931	31416	515	28969	9534	4916	2440	10489	1490	14522	49.87	2.163
PERRIS	15166	15058	108	5896	3140	125	229	884	1518	5163	12.43	2.917
SANCHO MIRAGE	8910	8899	11	9210	2883	4510	512	471	834	4057	55.95	2.193
SUNNYSIDE	209728	206247	3481	76611	47667	3177	5164	18713	1890	73462	4.11	2.808
SAN JACINTO	13747	13503	244	6024	2413	636	732	426	1817	5458	9.40	2.474
.....												
TOTAL INCORPORATED	672533	661335	11198	284673	158119	28228	21187	54705	22434	236068	17.07	2.801

IV-B

POPULATION
ECONOMICS
ELEMENT

DRAFT
POPULATION/ECONOMIC ELEMENT

I. INTRODUCTION

The analysis and projections of population and economic activity are important components of almost all major planning decisions. Population and economic information provides a general background for the development of other elements to the General Plan. Although this element is not a state mandated element to the General Plan, in order for Palm Desert to prepare, maintain, and review a General Plan for the physical growth and social development of the community, this element is of utmost importance.

A. IMPORTANCE

Considering population and economic data is important for many reasons. One reason is that population projections are needed to estimate the size and the location of sewer and water lines, streets, schools, public service and the amount of land needed for urban expansion. Present and projected population density, distribution, age and income structures and other characteristics determine short and long-term needs for a wide range of public and private facilities and services.

In addition, public policy can affect population and economic factors. For example, planning decisions can change the pattern and nature of development in directions envisioned by the community.

Third, state and federal laws require the consideration of social and economic factors when evaluating environmental impacts of proposed development project.

Finally, the element provides information concerning the local economy. Economic stability and the viability of a strong business community is of extreme importance to Palm Desert. Since no property tax is levied by the City, Palm Desert relies on other revenue sources, such as sales tax.

B. PURPOSE

The purpose of this element is to describe present and projected level of population and economic activity. The element also raises serious issues concerning the relationship between population growth, environmental quality, social objectives, and economic stability in the decision-making process. The basic objective is to minimize or, if possible, eliminate potential adverse impacts that can accompany rapid economic and population growth.

This element serves as a general policy statement that:

1. identifies and evaluates population and economic issues:
2. recommends policies to minimize adverse impacts resulting from too rapid of development:
3. describes population and economic growth patterns;
4. provides quantitative estimates of the future; and
5. provides an outline for implementation of the adopted goals and objectives.

C. RELATIONSHIP TO OTHER ELEMENTS

The elements of the General Plan are all, to some extent, related and interdependent, since together they provide the

policy frame-work to direct development needed to serve people and their activities within a given political jurisdiction and its sphere of influence.¹ To a large degree the other elements are based on the information provided in this element. The Population/Economic Element is related to other elements in two respects: determining future needs and determining environmental constraints. Future needs are considered in the housing, parks and recreation, land use, circulation, and public facility elements. These elements base future needs on projected population. Environmental constraints of rapid development are addressed in the land use, conservation/open space, noise, safety and seismic safety elements. Together, all of the elements influence the future development of Palm Desert.

D. METHODOLOGY/APPROACH

This element integrates work previously completed by a number of governmental and private agencies. Population analysis is accomplished by considering the May, 1979 City-wide survey, the 1976 Special Census, the General Plan adopted in 1975 and data received from California's Department of Finance. This element also takes into account CVAG's (Coachella Valley Association of Governments) population projection for Palm Desert to the year 2000.

Economic analysis is derived from data supplied by Riverside

¹ General Plan Guidelines pg. 3-5

County's Department of Development, the Board of Equalization, and the Employment Development Department.

E. DIVISION OF ELEMENT

The element has been subdivided into four sections:

- Goals and Objectives
- Population Analysis
- Economic Analysis
- Implementation Policies

Goals and objectives represent policies regarding what ends are to be achieved by the element. The Population Analysis section provides necessary inventory information. The section describes population trends by considering existing and potential population based on the May 1979 city-wide survey. Also, population projections are discussed. Finally, population problems and issues that could represent barriers to reaching the stated goals and objectives are considered. The Economic Analysis section discusses the economic stability of the community. The section describes employment trends and the viability of the industrial and commercial centers. Implementation policies, the final section, describes the mean in which to achieve the ends (goals and objectives).

II. GOALS AND OBJECTIVES

GOALS:

- Ensure viability of the economy of Palm Desert over time to prevent large public expenditures for renewal in the future.
- Assure that City revenues will be able to meet expenditures to provide a desired level of services within an appropriate level of taxation.
- Provide for "Life Cycle" possibility in housing, services, etc., so all persons in the community will have a full range of social contacts.
- Establish commercial and industrial uses as economically viable, attractive, interesting, and well related to other land uses.
- Strengthen and enhance Palm Desert's position as a major retail shopping area.
- Provide for neighborhood and community shopping areas to meet the local convenience needs of the City's residential area.
- Discourage development that poses a threat to the economic base, quality of life, and/or deliverance of public services.
- . Assure a stable economic base.

OBJECTIVES:

- Provide a variety of housing types to meet the needs of different family types, incomes, etc.
- Establish a balance of land uses that assures the City will be able to provide necessary municipal services.
- Phase development in a way that minimizes the extension of public facilities and services over large areas before full development.
- Encourage commercial centers as interesting centers of activity.
- Assure that industrial uses do not have undesirable external effects on other land uses or the environment.
- Encourage mutually beneficial relations between educational

institutions and the community.

- Encourage the upgrading of established commercial centers.
- Maximize the availability of commercial services and facilities to meet local needs.
- Assure that a particular market area does not become so overbuilt that vacancies become common, businesses flounder or just get by, and areas deteriorate.

III. POPULATION ANALYSIS

A. INTRODUCTION

The purpose of this section is to provide necessary information regarding past, present and future population of Palm Desert. It describes not only trends but also social characteristics of the population. It tries to present the wealth of available statistics about the community's population in a straight forward and understandable format. Most of the information presented is taken from a number of sources, including the 1970 U.S. Census, the 1976 Special Census, the May, 1979 city-wide survey, and various studies by governmental and private agencies about the future size of Palm Desert.

B. POPULATION TRENDS AND PROJECTIONS

1. Trends: 1960-1980

According to the State's Department of Finance, the population of Palm Desert in 1980 is approximately 14,900 permanent residents (those who reside year round). This represents an increase of 133.4% since 1970. The population estimate was based on the total number of existing units for each housing type, i.e., condominiums, single family, etc., multiplied by the estimated average number of persons per households in that particular housing type.

Preliminary results from the 1980 census indicate a lower permanent population (14,000) than the State's estimate.

However, these results will not be certified as official until 1981 and changes to the preliminary count may occur.

Since 1970, the simple annual growth rate has been approximately 14%. Table 1 illustrates the growth of population since 1960. The table also shows the rate of population growth between each population total.

TABLE 1
PERMANENT POPULATION TRENDS
1960 - 1979

<u>YEAR</u>	<u>POPULATION</u>	<u>% INCREASE</u>
1960	1,295	376.5
1970	6,171	46.2
1972	9,022	7.4
1976	9,691	38.0
1978	13,377	7.7
1979	14,402	3.5
1980	14,900	

Sources: 1960, 1970 US Census
1972, 1978 Calif. Dept. of Finance
1976 Special Census
1979 city-wide survey
1980 Calif. Dept. of Finance

As can be discerned from the table, the population of Palm Desert Has fluctuated during the 1970's. Factors outside the realm or control of the community played a significant role in this fluctuation. The small increase in population between 1972 and 1976 was aided by the economic slump and energy situation that

occurred during the time period. Between 1976 and 1978 the pace of growth picked up where it left off in 1972.

However, it appears that growth has, once again, slowed due to the national economical slump. Growth is expected to continue but at a slower rate since less and less is available for development.

2. Seasonal Population:

Like most of the communities of the upper Coachella Valley, Palm Desert has a large seasonal population. Seasonal residents are those who have acquired housing in Palm Desert as second homes, and whose principal place of residence is outside the Valley. Seasonal residents occupy their units only on weekends or at weeks or months at a time. 1976 Special Census indicated that the ratio of permanent to seasonal residents was 3 to 1. Therefore, since the total population, according to the city-wide survey, is 19,203, seasonal population, there are 416 hotel rooms available for short-term occupancy in the City. Multiplying this number by an average of two persons per room occupancy equals 832.

Adding seasonal and tourist population to permanent population increases the community's peak population, or the greatest number of individuals residing in Palm Desert at one time, in 1980 to about 20,035.

3. Potential Population:

Potential population is defined as the potential size of the community in the near future based on the number of units currently under construction and the number of units proposed and approved but not yet under construction. The definition assumes that the current household size will remain constant in the short run. Based on units now under construction or approved but not yet under construction, an addition population of 17,078 is expected in the next ten years. Assuming the same permanent to seasonal resident relationship described above, the total potential population is proportioned as follows:

<u>Units</u>	<u>Total</u>	<u>Permanent</u>	<u>Seasonal</u>
Under Construction	5,748	4,311	1,437
Proposed	11,330	8,497	2,833
TOTAL	17,078	12,808	4,270

Adding potential population to the City's present peak population of 20,035 provides a potential peak population of 37,113. The actual attainment of this population figure before 1990 is depended upon many factors. The most important of which is the present economic situation. A recession, the tightening of the money supply by the Federal Reserve Board, and the continuing energy situation could have adverse effects on the construction industry. The results are fewer construction permits being filed, fewer home loans and less money to purchase homes. The economic slump of

1972 and the "gas" crunch of 1973 had a dire effect on growth in Palm Desert and the entire Coachella Valley.

Another factor is the phasing of construction. Depending on the size of the development project it may take as long as five to six years before a project is completed. There will also be a time lag between completion and the selling of all of the units.

Taking into account the above factors; it is possible that the potential peak population, within the existing city boundaries, could be attained by the late 1980's.

4. North Sphere Area

The North Sphere Area is the area that extends north of Country Club to Interstate 10 between Monterey Avenue on the west and Cook Street on the east. For various reasons, it is important to consider the present and future population growth of this area. First, it is the area where Palm Desert will expand in the future. Second, it is already feeling the pressures of urban expansion. Third, since approximately 75% of the land is still vacant, it is the area where most of the future growth will occur. Finally, it will play a major role in determining the ultimate population of the entire planning area.

Presently, the total peak population of the area is 4,132. Approved projects not yet under construction could more than double the population to 8,740 by the late 1980's.

Table 2 summarizes the potential population in the City of Palm Desert and North Sphere Area, as determined by the May, 1979 city-wide survey. The Table breaks the data down by housing type, number of units and number of persons per housing type. The table further breaks the data down by units in existence, under construction and proposed.

5. Population Projections 1980 - 2000:

This section of the element discusses population projections for the entire planning area to the year 2000. Future community needs such as housing, water and sewer lines, police and fire protection, schools and parks are determined by population projections. Also, projections are needed for decisions about future economic growth.

It is difficult to make accurate projections about the future. The degree of accuracy decreases as the time period covering the projections increases. In most cases, projections covering a five to ten year period are reasonably accurate. Beyond ten years, determination of population increases are rather imprecise. Population projections are conjectural in nature. As stated in a recent CVAG study, "Changes in public policy, emergence of resource shortage, technological shifts, social attitude changes, war and an infinite number of events beyond even the most inventive imagination could occur next week; sending forecasters to their drawing boards."²

²CVAG, Growth Impact and Evaluation Report, Pg. 4, 1977.

TABLE 2

SUMMARY OF POTENTIAL POPULATION IN THE CITY OF PALM DESERT AND NORTH SPHERE OF INFLUENCE AREA - MAY 1979

Housing Type	City			Sphere			Total		
	Number of Units	Persons Per House	Total	Number Of Units	Persons Per House	Total	Number Of Units	Persons Per House	Total
Existing									
Planned Residential	2955	2.4	7092	-	2.4	-	2955	2.4	7092
Single-Family	2686	2.6	6984	130	2.6	338	2816	2.6	7322
Two-Family	392	2.6	1019	-	2.6	-	392	2.6	1019
Multi-Family	1195	2.1	2510	-	2.1	-	1195	2.1	2510
Mobile Home Park	700	1.8	1260	-	1.8	-	700	1.8	1260
Mobile Home Subdivision	169	2.0	335	1897	2.0	3794	2066	2.0	4132
SUBTOTALS	8097	2.4	19253	2027	2.0	4132	10124	2.3	23335
Under Construction									
Planned Residential	2129	2.4	5110	-	-	-	2129	2.4	5110
Mobile Home Park	10	1.8	18	-	-	-	10	1.8	18
Mobile Home Subdivision	310	2.0	620	-	-	-	310	2.0	620
SUBTOTALS	2449	2.3	5748	-	-	-	2449	2.3	5748
Proposed									
Planned Residential	3357	2.4	8057	1920	2.4	4608	5277	2.4	12665
Single-Family	1259	2.6	3273	-	2.6	-	1259	2.6	3273
SUBTOTALS	4616	2.4	11330	1920	2.4	4608	6536	2.4	15938
Summary									
Planned Residential	8441	2.4	20259	1920	2.4	4608	10361	2.4	24866
Single-Family	3945	2.6	10257	130	2.6	338	4075	2.6	10595
Two-Family	392	2.6	1019	-	2.6	-	392	2.6	1019
Multi-Family	1195	2.1	2510	-	2.1	-	1195	2.1	2510
Mobile Home Park	710	1.8	1278	-	1.8	-	710	1.8	1278
Mobile Home Subdivision	479	2.0	958	1897	2.0	3794	2376	2.0	4752
TOTALS	15162	2.4	36281	3947	2.2	8740	19109	2.4	45021

Note: Population estimates include permanent and seasonal only

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Regardless of the uncertainties and shortcomings, many decisions must be made on the basis of long term projections. In order to make the projections as accurate as possible certain assumptions are made regarding building trends, household size, land uses, birth/mortality rates and in-migration/out migration. Some of the assumptions are based on current policy while others are not directly influenced by local decisions. The following are the assumptions used to project Palm Desert's population to 2000.

- (a) Household size will continue to decrease. Currently, the average household size for the entire planning area is about 2.4; this figure varies from a low of 1.8 persons per mobile home to a high of 2.6 for single and two family units. California's Department of Finance predicts that the average household size in Palm Desert will decline to 2.27 by 1985. A further decline to 2.21 is predicted by 1995 by Southern California Edison Company.
- (b) Current Zoning practices will continue. The remaining residential land is primarily designated as very low (1-3 dwelling units per acre) to low 3-5 dwelling units per acre). There are specified areas where allowable density is higher.
- (c) Most of the current planning area will be developed by the year 2000, which means that Palm Desert's ultimate peak population will be reached at that time.

(d) The annual rate of growth will decrease from it's current 8% per year rate. As more and more land is urbanized growth will increase at a decreasing rate; it should level out to about 2% by 1995.

It has already been noted that the population of Palm Desert by the early 1990's will be approximately 45,000 permanent and seasonal residents. Based on the assumptions discussed above the projected population of Palm Desert and the North Sphere Area will be about 54,000 permanent and seasonal residents by the year 2000.

6. Age Structure of the Population:

The age structure of an area's population has an important bearing on the future population changes in the area. The age distribution of the population determines the potential size of the labor force, and is indicative of the type and magnitude of services that the area and population will require.

Table 3 shows the age distribution of Palm Desert's population in 1979. The age distribution was determined by extending the percent gathered as a part of the 1976 Special Census. For comparative and analysis purposes the 1970 age structure is also shown.

TABLE 3
AGE DISTRIBUTION

<u>Age Interval</u>	<u>% of Population</u>		<u>% Change 1970 - 1979</u>
	<u>1970</u>	<u>1979</u>	
0-4	6.0	5.0	-1.0
5-9	7.3	5.9	-1.4
10-14	8.0	5.7	-2.3
15-19	6.4	6.5	+ .1
20-24	5.9	7.4	+1.5
25-34	10.2	16.0	+5.8
35-59	27.9	27.8	- .1
60 and over	<u>28.3</u>	<u>25.7</u>	-2.6
	100.0	100.0	
Median Age	37.16	37.74	

As can be discerned from the table the largest changes since 1970 occurred in the 20-24 and 25-34 age brackets. Decreases occurred in the 60 and over and school age brackets. Median age rose by .58 years.

The age structure indicates that Palm Desert is a more balanced community than originally perceived. The image portrayed by Palm Desert and most of the Upper Valley is one of leisure and luxury, complemented by an emphasis on retirees. Although this remains true for a sizeable portion of the population about 51% are part of the civilian labor force while another 23% are school aged.

7. Problems/Issues:

Palm Desert's population will continue to increase, although not as rapid as the 1960's and early 1970's. During the late 1960's and throughout the 1970's communities have felt the consequences of too much growth at one time. Governmental regulations such as

zoning, subdivision regulations, and building codes determine the location and nature of growth but have little influence on the timing or rate of growth. To deal with the problems of development communities enacted growth control programs to regulate the nature, type, location, rate and timing growth.

Growth control measures have been deemed unnecessary in Palm Desert for two reasons. First, it seems that vacant land will be eventually developed. As long as rigid controls, presently in use, are maintained to assure quality development, there is no reason to believe that future growth under a growth control/management program will be fiscally or socially better than current growth. Second, if development is slowed in the city, it may take place outside the city, perhaps in a matter not acceptable to the total community. The purpose of this section is to raise serious issues that must be considered during the planning process to assure proper and beneficial growth.

(a) Quality of Life: Since 1960 Palm Desert and the entire Coachella Valley have experienced a phenomenal increase in population. Rapid increases in growth could result in the lowering of the area's quality of life such as pollution of the air we breathe and the water we drink, traffic congestion, additional noise, possible increase in crime and a loss of community identity. Too rapid growth can also diminish the character of the desert as a peaceful place to live. At the same time other services

such as cultural and entertainment activities come into existence due to growth which adds to quality of life in the area.

- (b) Municipal Finance: The fiscal condition of local government is affected by rapid growth. According to CVAG, more people equal more services and tax; all increases geometrically rather than arithmetically, which is to say that per capita outlays for local government services tend to increase quicker than population. As indicated in the fiscal impact report for this General Plan Update and the fiscal assessment of the Palm Desert Town Center, Palm Desert will continue to experience economy of scale, which means that revenues will stay ahead of expenditures. However, since the entire fiscal picture could change very rapidly fiscal impacts of future developments need to be monitored closely.
- (c) Service Efficiency: Too rapid development can overwhelm the facilities of a community. Sewage treatment, water supply and school facilities require extensive advance planning and can be caught short. Circulation systems, parks, storm drains, and even police and fire services can also be over utilized by rapid development.
- (d) Regional Context: Since Palm Desert is only a portion of a large region, it's growth rate will be strongly influenced by

external factors, and may vary radically in a somewhat unpredictable manner. These factors, such as locational decision of retail and industrial firms and the economic situation, have already been mentioned.

IV. ECONOMIC ANALYSIS

A. INTRODUCTION

A major goal of Palm Desert is to become a balanced community with full commercial services so that its residents will not be required to travel to adjacent communities for their shopping needs. Additionally, since no property tax is levied by the City, the attraction of commercial businesses which collect a large amount of sales tax--a percentage of which is returned to the City--is virtually essential if public services are to be provided. Finally, a strong business community is important not only to draw in the sales tax but also to compete with outside businesses, to attract new customers to the City, to meet the retail needs of a growing community, and to assure that prime locations are utilized to their full potential.

This section will describe and discuss various sectors of the economy, including employment, construction, industrial and commercial/retail.

B. EMPLOYMENT

Total employment by industry for Palm Desert and Riverside County is shown in Table 4. There are some noticeable differences between Palm Desert and Riverside County. As a percent of the total labor force there are more Palm Desert residents employed in the construction (3% more) trade (4.9% more) and services (2.2% more) industries than for the County as a whole. There are 10.7% more individuals employed in manufacturing for the County as a whole than in Palm Desert. There are minimal differences between the County and Palm Desert in the remaining industries.

TABLE 4
TOTAL EMPLOYMENT BY INDUSTRY: 1970
PALM DESERT AND RIVERSIDE COUNTY

	<u>Palm Desert</u>		<u>Riverside County</u>	
	<u>No.</u>	<u>%</u>	<u>No.</u>	<u>%</u>
Construction	216	9.3	9539	6.3
Manufacturing	117	5.1	23989	15.8
Transportation	50	2.2	3023	2.0
Communications, Utilities, services	97	4.2	5340	3.5
Trade	617	26.6	33005	21.7
Services	842	36.2	51660	34.0
Public Administration	185	8.0	10244	6.8
Other	195	8.4	14960	9.9
Total	2319	100.0	151760	100.0

Source: 1970 US Census

Since the date in Table 4 is 1970, its validity is questionable. Although the 1976 Special Census did not directly ask a question about employment by industry, it did ask a question concerning the major source of household income. The sample size was 63.2% of the total household responding to the question; the results were as follows:

<u>Source</u>	<u>Percent of Households</u>
Retirement Income	25.1%
Investments	13.8
Private Business	14.8
Retail/Wholesale Field	7.3
Construction Field	6.0
Tourist Related Field	4.1
Medical Field	4.0
Government Field	5.3
Services Field	19.6
	100.0

Non-employment income, i.e., retirement and investments, made up a sizeable proportion (38.9%) of household income in 1976. Services, which includes personal and professional, and private businesses make up approximately another 37 percent.

The percentage distribution of total employment by occupation in 1970 for Palm Desert, the Coachella Valley, and the remainder of Riverside County is shown in Table 5. Professional and managerial occupations account for more than 36% of total employment in Palm Desert, significantly higher than the Coachella Valley as a whole at 22% and the remainder of Riverside County (excluding the Coachella Valley) at 24.8 percent.

C. CONSTRUCTION

Few communities consider the construction industry as a separate entity when studying the economic picture. However, since Palm Desert is experiencing a growth boom and a sizeable proportion of the City's revenue source relates to the construction industry it is essential to look at the industry as a separate category.

The growth boom in 1978-79 accounted for 3,001 single family residences, 905 condominiums, 37 apartments and 29 commercial projects. Table 6 shows the number of permits issued and valuation of permits for all housing types, commercial projects and all other permits issued by the City since incorporation.

Since the 1974-75 fiscal year housing has received the greatest total valuation of building permits. Single family units continue to receive

TABLE 5

TOTAL EMPLOYMENT BY OCCUPATION IN 1970 - PERCENT DISTRIBUTION

The Coachella Valley and Riverside County*

	<u>Coachella Valley</u>	<u>Palm Desert</u>	<u>Riverside County*</u>
Professional, technical, and kindred workers	11.3%	20.3%	16.3%
Managers and administrators, except farm	10.7%	16.1%	8.5%
Sales Workers Retail and Wholesale trade	8.9%	11.0%	7.4%
Clerical and kindred workers	14.0%	16.7%	16.2%
Craftsmen, foremen, and kindred workers	10.8%	12.5%	14.7%
Operatives, transportation equipment operatives	9.4%	3.9%	14.3%
Laborers, except farm	5.4%	3.3%	4.7%
Farm Workers	11.6%	2.6%	3.8%
Service workers	16.0%	13.6%	12.7%
Private household workers	1.9%		1.4%

*Excluding the Coachella Valley

SOURCE: 1970 Federal Census

TABLE 6
PERMIT VALUATION: 1974 - 1980

FISCAL YEAR	ALL HOUSING				ALL COMMERCIAL			
	# of Permits	% Change	Total Valuation	% Change	# of Permits	% Change	Total Valuation	% Change
1974 - 1975	306	---	\$11,750,862	---	57	---	\$ 906,885	---
1975 - 1976	224	-26.8	7,849,070	-33.2	14	-75.4	2,289,146	+152.4
1976 - 1977	603	+169.2	25,565,540	+225.7	15	7.1	2,000,108	-12.6
1977 - 1978	1421	+135.7	70,366,109	+175.2	29	93.3	6,134,761	206.7
1978 - 1979	1288	-9.4	67,741,665	-3.7	29	---	5,450,497	-11.2
1979 - 1980	895	-30.5	54,106,647	-20.1	42	44.8	11,347,025	108.2

FISCAL YEAR	ALL OTHER				TOTAL PERMITS			
	# of Permits	% Change	Total Valuation	% Change	# of Permits	% Change	Total Valuation	% Change
1974 - 1975	2036	---	\$2,238,393	---	2399	---	\$14,896,140	---
1975 - 1976	2233	+9.7	2,083,384	-6.7	2471	3.0	12,226,601	-17.9
1976 - 1977	3080	37.9	3,830,125	83.4	3698	49.7	31,395,773	156.8
1977 - 1978	6295	104.4	4,840,308	26.4	7745	109.4	78,341,238	149.5
1978 - 1979	8946	42.1	7,655,184	58.2	10263	32.5	80,857,346	3.2
1979 - 1980	7047	-21.2	7,262,684	-5.1	7894	-23.1	72,716,356	-10.1

SOURCE: Building Department, City of Palm Desert

most of the valuation of permits. Due to the national economic slump total valuation of all permits decreased 10.1% in the 1979-1980 fiscal year as compared to the 1978-1979 fiscal year. Housing valuation decreased by over 20% while commercial valuation increased. The housing industry was extremely sensitive to the surge in interest rates that occurred in late 1979 and early 1980. More than half of the 895 housing permits issued during the past fiscal year were issued in the first quarter.

The growth boom has resulted in a drastic increase of assessed valuation of property since 1975. Assessed valuation of property has more than doubled, as is shown by the following table.

TABLE 7

	<u>Assessed Valuation</u>
1979	\$ 97,818,919
1978	81,262,459
1977	65,517,000
1976	58,649,000
1975	47,162,000

The most immediate problem facing the construction industry is the fluctuation of the prime interest rate, which reached as high as 20% in the Spring of 1979. The Federal Reserve Board increased the interest rate in an attempt to drastically cut the rate of inflation by decreasing the nation's money supply. The effect was to make it more difficult for individuals to borrow money. Although interest rates have fallen, it appears that the rate is, once again, moving in an upward spiral.

This instability in the money market could cause a continued slowdown in the construction boom. The length of this slowdown will depend on how fast the Federal Reserve will increase the supply of money in the future.

Except for the Federal Reserve action, the construction industry should continue to play a major role as employer and source of the revenue until the early 2000's. It is at that time that most of the available land will be developed.

D. INDUSTRIAL

Presently, 25.3 acres of Palm Desert is devoted to industrial use. Service industrial is located in the northeastern section of the City. There is a 2.3 acre project already in existence with another 2.3 acre planned industrial project approved for development. Service industrial uses are oriented toward storage, distribution, assembly, service, commercial, and research and office facilities.

At this time industrial use is not a major factor in the overall economic situation in Palm Desert. The land use plan does not provide for industrial use to play an important role in the future.

Industrial use is a type of land use that could have impacts on the quality of life in Palm Desert. The following is a short discussion of potential impacts confronting the City in regards to industrial use:

1. Emissions: Industrial plants result in increased noise, vibration, gasses (in some cases), particulates and more.

The amount and extent of the problem depends upon the particular use; some uses will not have the same effect as others. Noise is perhaps the most potentially troublesome. Noise can come from the operation of the plant as well as from the additional traffic resulting from the plant.

2. Aesthetic: In most cases industrial plants take away from the beauty of the area. Again, it depends on the type of industrial use that is being considered. Industrial plants are being built to enhance the beauty of an area.
3. Residential Encroachment: Incompatible land uses such as housing and industry lead to complaints and a less desirable situation for both residents and industry.

There are mitigating measures that the City can employ to lessen the impacts of industrial use. The City has police powers such as zoning and subdivision regulations that can provide for assurances that industrial uses benefit the Community. Other elements of the General Plan have addressed some of the aforementioned problems and have recommended action to either reduce or eliminate the problems. These should be considered when and if the City decides to expand industrial use.

E. COMMERCIAL/RETAIL

The commercial/retail areas of the City continues to be dispersed along Highway 111 and El Paseo. There are three general types of commercial zones. As described in the Palm Desert Redevelopment

Program, the types and their uses include:

- a. Core Area Commercial: Offices, financial institutions, restaurants, retail commercial uses, including convenience shopping, auto service and auxiliary uses.
- b. Planned Commercial - Regional Complex: including, but not limited to supermarkets, department stores, banks, variety stores, professional offices, restaurants and general retail uses.
- c. Planned Commercial - Resort: including, but not limited to hotels/motels, theaters, restaurants, entertainment facilities and related commercial uses.

There are three major shopping areas in Palm Desert. First, there is the Palms to Pines Shopping Center located at the western end of Highway 111 near Monterey and Highway 74. Right across the street is the proposed location of the Palm Desert Town Center (regional center containing 750,000 square feet of leasable area). The Palms to Pines Shopping Center is of recent vintage and has a full variety of retail/commercial uses.

El Paseo is a second area of retail trade. Many people feel that eventually El Paseo can be the Rodeo Drive of the Desert. Most of the shops cater to the well-to-do; the shops are specialty shops in nature. Merchants, in an article in Palm Springs Life (October, 1979 issue), described problems besetting El Paseo, they were stated to be:

1. Too many banks and savings and loan institutions which are not conducive to drawing foot traffic.
2. Presently, the area is temporarily overbuilt and there is an enormous influx of people who come in not realizing the restraints of an eight month season.
3. Area is spread out too much for it to have a total continuity: shops are not woven together.

The third area of shopping includes the many shops lining Highway 111. Besides the planned commercial areas such as the Smith's Food King and Market Basket Centers, many shops are oriented towards services and automotive related uses.

Presently there are over 400 retail shops in the City. Women's, men's and children's apparel has the largest number of stores - 50. According to issued business licenses, other large categories include personal services (43 shops), eating and drinking establishments (40), specialty shops (41) and home furnishing shops (28).

One measure of success of a City's retail area is the amount of taxable sales that are collected. Presently, the sales tax rate is equalled to 6%, of which 1% is returned to the City. Since the 1974 taxable retail sales have increased by 175.3%, Table 8 shows the trend.

TABLE 8

<u>Year</u>	<u>Taxable Retail Sales</u>
1979	\$ 72,451,000
1978	59,826,000
1977	49,048,000
1976	39,639,000
1975	32,078,000
1974	26,313,000

Table 9 shows Taxable Retail Sales by type of business. As can be discerned by the chart, all categories of business have experienced large increases in taxable sales.

Although taxable sales have continued to increase and new commercial ventures have been approved for development, problems are evident. A major problem facing many merchants along Highway 111 is the general condition of buildings. There is a need to revitalize the buildings to continue to improve the general appearance of the community. Of course, this does not pertain to all shops but a good number could receive painting and general repair and remodeling.

A second problem consists of moving people from one shopping area to another. There is the potential of making the shopping experience in Palm Desert an all day affair. Some sort of people's mover should be considered to transport people from shopping areas. This could make shopping in Palm Desert a convenience. The system could be operated by local businesses.

The business community can alleviate these and other problems via the Chamber of Commerce or an independent business association. The overall objective is to assure a viable commercial area. Their activities could include:

TABLE 9

TAXABLE SALES BY TYPE OF BUSINESS
(Taxable Transactions in Thousands of Dollars)

TYPE OF BUSINESS	1973	1974	1975	1976	1977	1978	1979
Retail Stores							
Apparel	\$ 2,945	\$ 3,656	\$ 4,900	\$ 5,623	\$ 6,644	\$ 8,196	\$ 9,131
General Merchandise	#	#	#	651	894	888	846
Drug	#	#	#	#	#	#	#
Food+	2,567	3,252	4,553	5,151	6,062	7,813	9,409
Packaged Liquor	#	1,480	1,585	2,039	#	#	2,712
Eating and Drinking Places	3,319	3,835	4,764	6,761	8,146	8,531	9,499
Home Furnishings and Appliances	2,816	2,304	1,926	2,270	3,184	5,366	7,264
Building Material	#	1,086	1,097	1,578	2,319	3,388	4,443
Auto Supplies	#	-	-	#	151	#	#
Service Stations+	1,988	2,700	2,991	3,650	4,934	6,313	7,923
Other Retail Stores	6,333	4,787	5,816	6,375	9,609	11,959	12,386
Retail Stores Total	19,968	23,100	27,632	34,098	41,943	52,454	63,613
All Other Outlets	-	3,213	4,446	5,541	7,105	7,372	8,838
TOTAL	\$ 19,968	\$ 26,313	\$ 32,078	\$ 39,639	\$ 49,048	\$ 59,826	\$ 72,451

+ Tax exempted sales for consumption rather than resale, consisting primarily of sales of food for off-premises consumption, are not included.

Omitted to avoid disclosure of the business affairs of an individual taxpayer and grouped with the sales of "Other Retail Stores".

SOURCE: Office of State Board of Equalization

- constantly monitoring the potential of each market.
- actively recruit businesses to fill those categories where it appears available dollars are being spent outside the community due to lack of local firms.
- assess why certain businesses are not realizing their sales potential and provide assistance.
- assure that a particular market does not become so overbuilt that vacancies become common, businesses flounder or just get by and areas deteriorate.

These are activities in which the local business community can become involved without jeopardizing the free market system.

The Land Use Element details the areas for commercial land uses. The plan calls for Regional Centers, Convenience Commercial areas and specialty shops within proposed developments. For a full description of the proposal, refer to the Land Use Element.

V. IMPLEMENTATION POLICIES

In order to mitigate the possible adverse effects of the problems identified in this element, there must be a commitment and a willingness on the part of local officials, the local business community and development interests to take appropriate action. Using this belief as a guide, it is the purpose of this section to describe the means in which the goals and objectives of this element can be achieved.

A. ASSUMPTIONS

The Implementation Policies are based on the following assumptions:

1. Growth will continue in the future; ultimate peak population could be between 50,000 and 54,000 in the entire planning area.
2. Development that will ensure the provision of public services and maintain municipal finances will be encouraged.
3. A strong and viable business community is essential for the future of Palm Desert.
4. The Implementation Policies must be accomplished through a coordinated effort by the public, private enterprise, and all levels of government.

B. GOVERNMENT REGULATIONS

There are a wide variety of government regulations available to ensure that only beneficial growth occurs. The overriding principle is to guide population to encourage achievement of the goals of providing housing for those living and working in Palm Desert, meeting municipal costs, and maintaining a high quality of residential development. There are many techniques already available to maintain growth.

The objective is to phase development in an orderly manner in accordance with the following criteria:

- maintain a compact development pattern at all stages of development, reducing early public investment for extension of public facilities and service area.
- avoid early development of selected areas of prime natural areas.
- avoid leapfrogging development to decrease the cost of providing services.
- develop industrial and commercial uses to provide tax income for capital investment of facilities serving residential development.
- monitor expenditures for facilities and services to identify marginal costs of new development of various types, and modify development patterns and phasing if required to reduce municipal costs.

The techniques described below are already in existence.

1. Zoning: Zoning is used to control land use by type. The land use element proposes various residential density levels throughout the community. These density levels control the number of units that will be allowed. One standard applied by the City to determine density ranges is the adequacy of public facilities. Zoning can be used, therefore, to ensure that appropriate facilities are available.
2. Subdivision Regulations: These regulations are used to assure that large development projects are in compliance with the General Plan and Zoning Ordinance. Regulations are used to

provide for public services such as additional streets, water and sewer lines, and parks and recreation. The City can require the developer to either provide these improvements as a part of the development or pay a fee for such improvements.

3. Environmental Impact Report/Assessment: State legislation (CEQA) provides the opportunity for cities to critically review development on various basis. One such basis is the effect the project will have on public facilities, the local economy, and municipal costs. The City could require developers to analyze the long term costs the City will face by the completion of the project. This is especially important in residential developments since, unlike commercial development, they do not provide continuous tax revenue. The City could require developers to present alternatives to meet these rising costs.
4. Capital Improvement Program: The City has a five year Capital Improvement Program based on future community needs and expected revenue to pay for these needs. The program also states where these improvements will take place.

C. MONITORING SYSTEM

Because of the difficulty of developing accurate information relating to marginal costs of additional development of various types, it is recommended that a monitoring program for such costs be established to provide information for later development. Marginal cost/revenue ratios of new development will become more important in balancing the City's budget.

D. INDUSTRIAL DEVELOPMENT

The Land Use Element recommends the completion of a specific plan for the North Sphere Area. The specific plan should consider the feasibility of designating areas adjacent to Interstate 10 as service industrial. Uses in these areas could include warehousing, clean manufacturing firms such as electronics, and research and development. As indicated in the text, Industrial Development raises some issues such as noise, all of which could be mitigated in a specific plan.

E. COMMERCIAL DEVELOPMENT

The commercial land use designations, as described in this and the Land Use Elements, is adequate to meet the present and future needs of the community. As described in the Land Use Element commercial development is guided in a number of commercial centers of various types, such as a regional commercial center, specialty centers and neighborhood or district centers. The adoption of the Land Use Element will guarantee the development of adequate commercial outlets.

The City should encourage the upgrading of established commercial centers to alleviate most of the existing problems. The image and function of existing and proposed commercial centers should be strengthened by a unified architectural theme, signing, landscaping, walkways, circulation and parking.

The City should encourage the business community to form an association (or through the established Chamber of Commerce) to deal with

these and other problems. The overall objective of the association should be to assure a viable and strong commercial area whose market area could extend beyond the City. Their activities could include:

- constantly monitoring the economic activity of the City.
- suggest ways to deal with commercial related problems.
- raise funds to either alleviate or reduce problems.

Many of the problems facing the business community can only be rectified by the property owner. It should be reiterated that most of the problems, as already stated, are purely cosmetic in nature.

IV-C

SAFETY
ELEMENT

DRAFT
SAFETY ELEMENT¹

I. INTRODUCTION

A. PURPOSE

The primary purpose of the safety element is to introduce safety considerations in the planning process. It serves as a general policy statement that:

1. identifies and evaluates natural hazards,
2. recommends policies to reduce adverse impacts of those hazards, and
3. provides a framework by which safety considerations can be introduced into the planning and development process.

The element's specific focus is towards the reduction and/or prevention of loss of life, injuries, property damage, and economic and social dislocation due to fires, floods, and other natural disasters. The identification of areas that could possibly experience natural disaster can help determine which land uses to allow, densities to allow, and the design of the circulation system.

Natural hazards, such as blowsand and flooding, can not be localized. Instead, they must be considered within the regional context. In light of this, the Safety Element must consider the role of the City in relation to regional type hazards.

¹ Government Code, Section 65302(i) requires a "safety element for the protection of the Community from fires and geologic hazards including features necessary for such protection as evacuation routes, peak load water supply requirements, minimum road width, clearance around structures, and geologic hazard mapping in areas of known geologic hazard.

B. DIVISION OF ELEMENT

The Safety Element has been divided into six sections:

- o Goals and Objectives
- o Natural Hazards
- o Disaster Preparedness
- o Defensible Space
- o Acceptance of Risk
- o Implementation Strategies

The Goals and Objectives section represents the ends to be achieved by the implementation strategies; these represent the official policies of the City. Natural Hazards, such as fire, blowsand and floods, are identified and evaluated in the second section. Disaster Preparedness is considered in the third section. It is basically an organizational tool that specifies "who" does "what", "when", and "where". The fourth section discusses defensible space which can be defined as a physical environment which inhibits crime by creating a social fabric that defends itself. Since there is no such thing as a perfectly hazard-free environment, the fifth section discusses how much risk is acceptable. The final section, Implementation Strategies, describes the means in order to achieve the ends, i.e., goals and objectives.

II. GOALS AND OBJECTIVES

GOALS

- Minimize the damage to life and property from man-made or natural hazards.
- Minimize social and economic dislocations resulting from injury, loss of life and property damage caused by hazardous or disastrous events.

OBJECTIVES

- Reduce the probability of hazard occurrence.
- Reduce the severity of impacts from those hazards which cannot be avoided.

III. NATURAL HAZARDS

The purpose of this section is to identify and evaluate natural hazards that could result in the loss of life, injuries, and property damage. There are three major hazards facing Palm Desert - fire, blowsand, and flooding.

A. FIRE SAFETY

The Riverside County Department of Fire Protection provides fire protection within Palm Desert. One fire station is located in the City and has two 1250 gallons per minute fire trucks. It is expected that these two trucks will be replaced by 1500 gallons per minute trucks in the next few years.

According to the Fire Marshal, the Fire Department responded to about 1000 calls in 1978; approximately 1200 calls are expected for 1980. Most of the calls are for rescue, structural fires and public service.

The category of fire that is of primary concern to the City is structural fire. Approximately 100 structural fires have occurred in the City this year. The threat of a major fire disaster is minimal. Generally, structures are in fairly good conditions, fire fighting equipment is adequate, hydrants are sufficiently located and reasonable access for fire fighting equipment is available.

Although there are isolated exceptions to this general statement, conditions, e.g., low density nature of the City, are such that it is unlikely that structural fires will ever constitute a "disaster".

However, as growth continues, careful attention should be given to fire protection in future high density dwelling areas.

In April, 1980 the voters approved the City's Fire Assessment proposal which is expected to generate funds to improve the provision of fire protection in Palm Desert.

B. BLOWSAND HAZARD

Although blowsand affects the entire community; the brunt of the problem exists in the undeveloped areas of north Palm Desert.

The problem and the various ways of mitigating the situation is discussed. Unless otherwise noted most of the information comes from CVAG's Blowsand Control and Protection Plan.

1. The Problem: In simplest terms, the phenomenon of blowing sand is the natural physical interaction of sand and wind, influenced by the environmental setting. Thus, sand and wind, plus those natural and human elements which directly or indirectly affect their interaction, constitute the contributing factors.

While natural factors, such as the geologic setting of the Valley and availability of source material, play an important part in the problem, man has contributed to the situation. According to CVAG, the following are the human factors involved with the blowsand problem.

- (a) Altering Natural Drainage: Construction of various flood control works has resulted in a dispersal of flood waters laden with deposits of sand over new areas. Storm run-off control facilities have altered natural irrigation of native vegetation.

thus changing the patterns and intensities of natural ground cover. Also, the construction process itself has resulted in the freeing of loose sand.

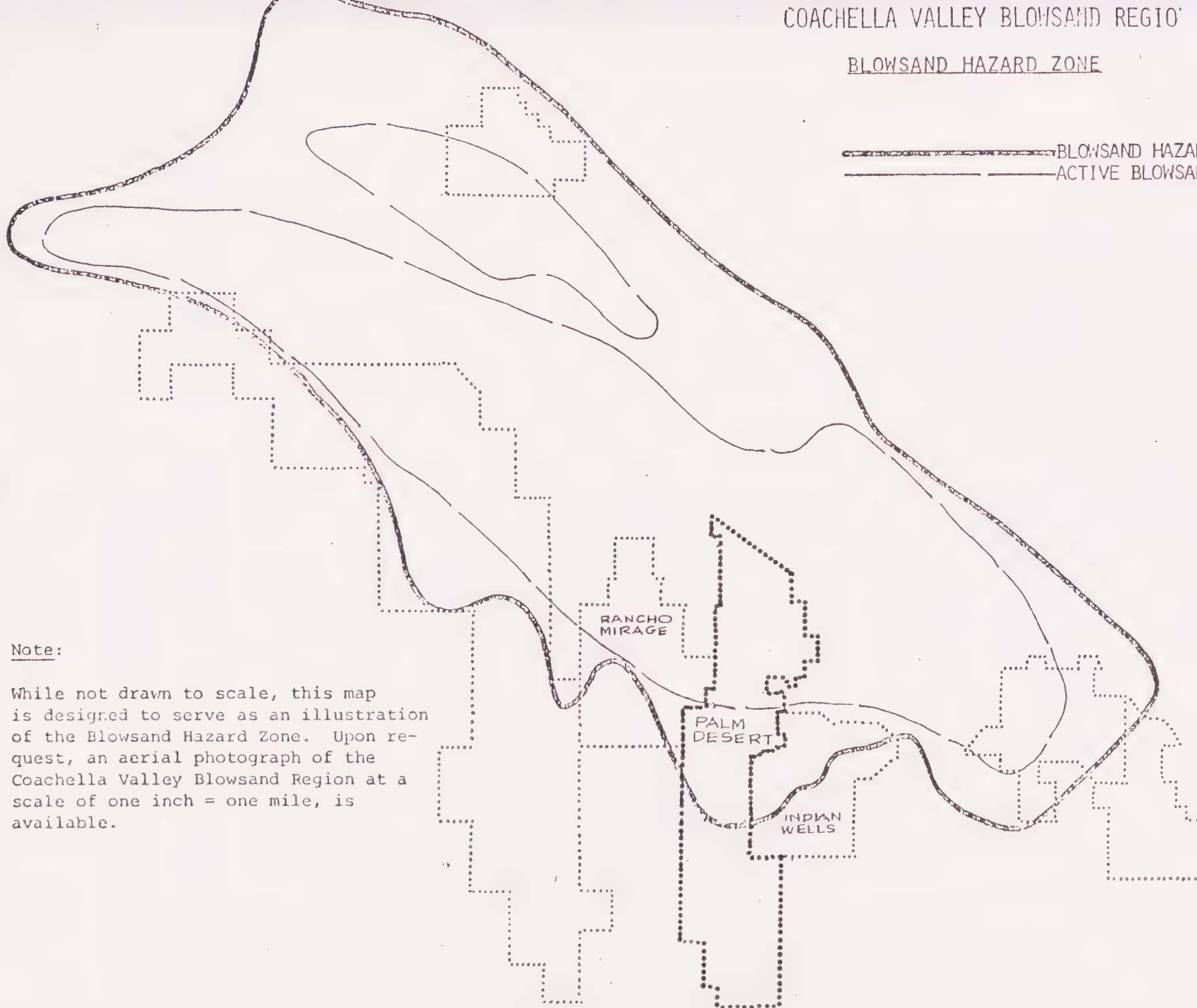
- (b) Constructing Major Facilities: Highways and other major construction related activities have been responsible for the scarring of large land areas and the freeing of sand that would have otherwise remained stabilized.
- (c) Developing Desert Lands: Albeit a completed development project aids in the control of the blowsand problem, during the development process, activities adverse to the community's welfare can occur.
- (d) Disturbing Natural Vegetation: Indiscriminate activity in large open areas within the active blowsand region, particularly by off-road type vehicles, has contributed substantially to the overall problems. Any disturbance of desert soils and vegetation exposes erodible material to wind action.

- 2. Blowsand Related Damage: The economic cost of residing in an active blowsand region is enormous. Losses or damages sustained as a direct result of blowing sand include: damage to automobiles by sandblasting of glass and painted surfaces; damage to railroad rolling stock and permanent facilities; damage to real estate directly related to sand accumulation or destruction of surfaces and equipment; and, damage to residential properties within the blowsand hazard zone. In addition, blowsand adds to maintenance and removal costs along roadways and railroads associated with sand

COACHELLA VALLEY BLOWSAND REGION

BLOWSAND HAZARD ZONE

——— BLOWSAND HAZARD ZONE
——— ACTIVE BLOWSAND ZONE



Note:

While not drawn to scale, this map is designed to serve as an illustration of the Blowsand Hazard Zone. Upon request, an aerial photograph of the Coachella Valley Blowsand Region at a scale of one inch = one mile, is available.

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accumulation, impairs mobility, reduces visibility and hinders tourist trade.²

3. Blowsand Hazard Zone: CVAG defines such a zone as "all land, by nature of its location or soil characteristics, subject to real or potential sand accumulation and/or abrasion damage or land which may cause sand damage on adjacent property."³ Map 1 identifies portions of the Coachella Valley subject to blowsand damage.

The map should not be considered or used as an indicator of blowsand activity at specific sites. Measures mitigating the effect of the problem should be considered when evaluating a proposed project.

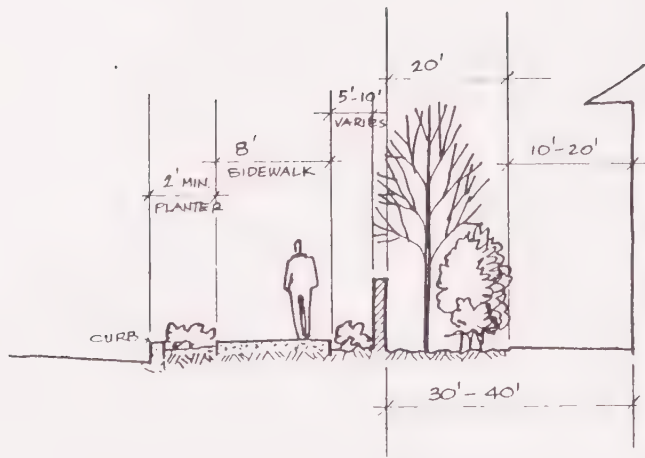
4. Control Methods: The intent of controlling the blowsand problem is to protect the health, safety, and general welfare of future residents of a proposed development, to provide for the protection of adjacent property owners subject to soil erosion and/or soil accumulation resulting from development activities, and to minimize the public cost of removing accumulated sand on public roads.

Blowsand control devices may include, but are not limited to, vegetative barriers, walls, screens, fences, vegetative ground covers, temporary and permanent ground covers, soil stabilizers

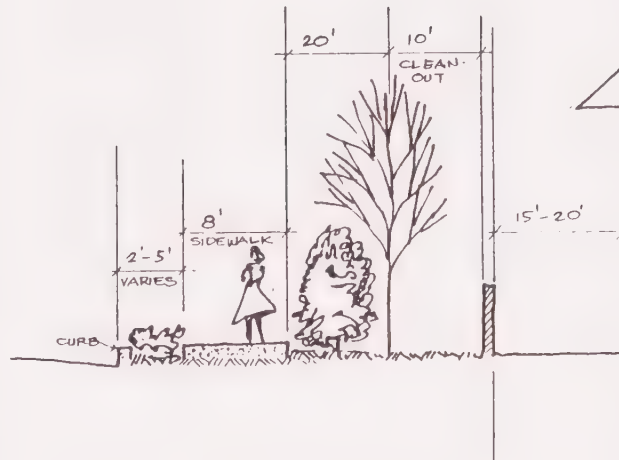
² CVAG, Preliminary Assessment of Non-Flood Related Benefits Associated with the Whitewash Dam 5/23/78 (pg 6)

³ CVAG, Blowsand Control and Protection Plan June, 1977 (pg 28)

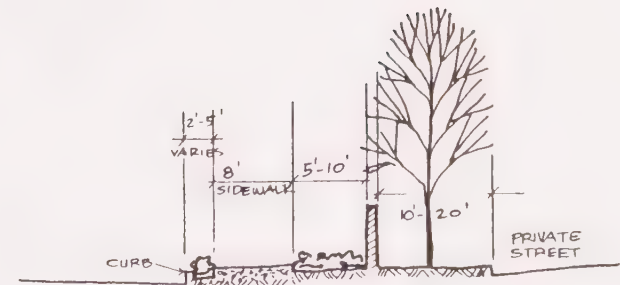
WIND/BLOWSAND PROTECTION



STREET ALTERNATIVE A



STREET ALTERNATIVE B



STREET ALTERNATIVE C

FIGURE 1

NO SCALE

and watering techniques or other materials or procedure utilized to prevent soils or land from erosion and/or sand from blowing across or accumulating upon the area proposed for development, public roads and/or adjacent property.⁴

Vegetative planting has been the most extensive and effective of all methods to date. Accordingly, it is generally deemed the best, most desirable method of direct blowsand control and protection. Planting can be considered to be two basic types: groundcovers and large shrubs and trees. Walls have been effective in stopping the forward movement of sand. Figure 1 illustrates ways in which blowsand can be controlled.

C. FLOOD CONTROL

Flood control measures are under the direction of the Coachella Valley County Water District. However, it is the responsibility of local government to ensure an adequate drainage system is constructed.

Palm Desert and the entire Coachella Valley have always been subjected to one major menace--flash flooding. Damages come primarily from two sources: runoff from storms occurring in the adjacent mountain ranges and from storms over the valley floor.

The construction of numerous private development projects within the study area has made planning and construction of an adequate

⁴ IBID, page 21

drainage system imperative. The City's interest in planning and constructing an adequate drainage system commenced shortly after the adoption of the original General Plan by the voters in 1975. This interest has culminated in the adoption of three major reports:

- Master Drainage Plan for the City of Palm Desert, by I. Harold Housley, dated June, 1976;
- Engineering Report on Preliminary Design and cost estimates for Flood Control Works for Palm Desert, Rancho Mirage and Indian Wells, by Bechtel, Inc., dated August 1977;
- Master Plan of Drainage, North Palm Desert area, by Willdan and Associates: dated April 1979,

A brief summary of both plans are presented below. The complete text of the plans with accompanying technical study are on file with the Department of Environmental Services and the Department of Public Works.

Master Drainage Plan the City of Palm Desert

As a result of the investigation summarized in the report, a comprehensive master plan of local drainage was developed by I. Harold Housley, in association with Willdan and Associates. The basic plan provides for flood protection from a storm with a return frequency of 10 years. In addition to subsurface drainage facilities, the plan proposes certain surface improvements--primarily the construction of curbs and gutters--considered necessary to provide for adequate drainage.

Since the report and the plan are about four years old, and the City experienced extensive property damage from flooding in July, 1979, the drainage plan should be reviewed and, if necessary, revised before full implementation occurs.

Master Plan of Drainage for the North Palm Desert Area

As a result of the investigation summarized in the consultant's report, a comprehensive master plan of local drainage for the north Palm Desert area was developed. The basic plan provides for flood protection for a storm of return frequency of 100 years. In addition to subsurface drainage facilities, the plan proposes certain surface improvements including the construction of retarding basins in Sand Dunes Park, southerly of the proposed extension of Hovley Lane and easterly of Portola Avenue and adjacent to Interstate 10, easterly of Cook Street. The plan also suggests the construction of approximately 4,800 feet of a trapezoidal channel along with north side of Frank Sinatra Drive.

Funding Methods

For the two plans to be implemented it is necessary that funding mechanisms be developed. One method is the "Planned Local Drainage Facilities Fund", established by Ordinance #175. The purpose of the fund is to defray the cost of constructing the necessary facilities. The City can either require the payment of offsite drainage fees or require the construction of the necessary facilities as a condition of approval of the final subdivision plan.

Another possible funding method is applying for federal grants for the construction of necessary facilities. However, since available federal dollars are scarce and competition for funds that are available is fierce this alternative may not be feasible.

IV. DISASTER PREPAREDNESS

The way in which local government responds to an emergency situation is essential to the recovery of a community. The loss of life and damage to property as a result of a disaster can be greatly compounded if emergencies are not handled correctly and decisions are not made in proper sequence.

Disaster preparedness operations occur whenever local government must respond to any extraordinary emergencies, such as earthquakes, flooding or other natural disasters, major explosions or accidents, or contamination of toxic chemicals; or unusual peacetime emergencies such as civil disorder. It is the need for coordinated emergency operation involving all governmental and non-governmental groups with the capacity to minimize the loss of lives or property damages that distinguishes extraordinary emergencies from everyday emergencies faced by local police and fire or hospitals and doctors.

Palm Desert has adopted an Emergency Operation Plan. It is basically an organizational tool that specifies "who" does "what", "when", and "where". The plan details the duties and responsibilities of each department head in the event of an emergency situation.

In addition, the City has a joint powers agreement with Riverside County for Disaster Preparedness Assistance. The plans are complemented and coordinated with the State Office of Emergency Services.

In order to maintain the effectiveness of these plans it is necessary for these plans to be periodically reviewed.

V. DEFENSIBLE SPACE

In response to the alarming increase in urban crime rates during the late 1960's, architects, housing developers, city planners, and police began to explore the relationships between man's physical environment and criminal activities. It had become increasingly apparent that the crime problems could not be solved by continual expansion of police forces or costly expenditures on security and surveillance equipment. Numerous studies were conducted to determine the relationships between the location of crimes and the physical considerations such as building size, densities, architectural features, and landscaping.

One idea that emerged from these various studies was the concept of "defensible space". Defensible space can be defined as a physical environment which inhibits crime by creating a social fabric that defends itself:

"...all the different elements which combine to make a defensible space have a common goal--an environment in which latent territoriality and sense of community in the inhabitants can be translated into responsibility for ensuring a safe, productive, and well-maintained living space. The potential criminal perceives such a space as controlled by its residents, leaving him an intruder easily recognized and dealt with..."⁵

⁵ Newman, Oscar; Defensible Space, New York, Collier Books, 1973

The key to creating defensible space lies in separating public and private space, thereby creating a feeling in outsiders that the land belongs to residents. Some of the mechanisms that architects can use to demonstrate the function of a space and who its users are and ought to be included:

1. Grouping dwelling units to reinforce associations of mutual benefit.
2. Delineating paths of movement.
3. Defining areas of activity for particular users throughout their juxtaposition with internal living areas.
4. Providing for natural opportunity for visual surveillance.
5. Creating space which one feels is his rather than available to everyone.

Another concept that has emerged is the reliance on security provided by enclosed spaces completed with gates, closed circuit television, surity guards, and private security services. Many new developments in Palm Desert has opted for these methods.

While the two aforementioned concepts could assist in the abatement of crime, neither defensible space nor gated communities will alleviate the need for additional police services as the community grows.

VI. ACCEPTANCE OF RISK

According to the Council on Intergovernmental Relations an acceptable level of risk should be determined in order to formulate an implementation program. In making this determination, it should be kept in mind that any attempt to develop the appropriate planning response to potential hazard involves a judgement, either explicit or implicit, of how much risk is acceptable. There is no such thing as a perfectly hazard-free environment. However, efforts can be productively undertaken to try to mitigate the consequences of the hazards identified and evaluated in this element.⁶

In the context of this element, the problem of risk is one of public policy and the appropriate allocation of public resources to mitigate hazards. The central question is, "how safe is safe enough?"

As stated throughout this element, there are three risks which must be evaluated: the risk to human life, the risk to property, and the risk of social and economic disruption. Since it is economically impractical to state that government must eliminate or reduce risk as much as possible, it becomes important to determine when a risk becomes acceptable.

The determination of acceptable level of risk is equated with whether or not action is necessary by the City. The Council on

⁶ Council on Intergovernmental Relations, General Plan Guidelines (IV.37)

Intergovernmental Relations defines risk from natural and man-made hazards in three categories:⁷

1. Acceptable Risk: The level of risk below which no specific action by local government is deemed to be necessary.
2. Unacceptable Risk: The level of risk above which specific action by government is deemed to be necessary to protect life and property.
3. Avoidable Risk: Risk not necessary to take because individual or public goals can be achieved at the same or less total 'cost' by other means without taking the risk.

If action by the City is needed, then this represents an "unacceptable level of risk."

⁷ IBID (Pg IV. 37-38)

VII. IMPLEMENTATION PROGRAM

In order to mitigate the possible adverse effects of the hazards identified in this element, there must be a commitment and a willingness on the part of local officials to take action. Using this belief as a guide, it is the purpose of this section to describe the means in which the goals and objectives of this element can be achieved.

A. Fire Safety

- The City shall continue its effort to upgrade fire protection in the City and establish periodic review processes and standards to ensure that the service remains at high levels.
- In reviewing a proposed development the City shall assure ease of access for fire and all other emergency vehicles.

B. Blowsand Protection

- In reviewing a proposed project the City shall require mitigation of the blowsand problem as a condition of approval.
- On a short-term level, the following should be considered as a standard for grading and construction.
 - (1) Keep the site and area traversed by vehicles including trucks and other construction equipment and machinery, sprayed and watered sufficiently to suppress dust.
 - (2) Restrict all such vehicles and equipment to travel along established and properly watered roadways.

- (3) Require that all vehicles hauling dirt or other particulate material be sprayed and moistened prior to their leaving the construction site.
- (4) Require that operations which tend to create dust be suspended when the wind velocity is sufficient to cause such problems.

C. Flood Control

- The City shall review and evaluate proposed land uses in areas of flood hazard.
- The City shall update zoning ordinances relative to flood hazards.
- The City shall improve flood protection along major circulation routes.
- The City shall review and, if necessary, revise the Master drainage Plan for the City of Palm Desert in the next fiscal year.

D. Disaster Preparedness

- The City shall maintain and periodically review the Emergency Operations Plan. Objectives shall continue
 - To save lives and protect property
 - To provide a basis for direction, and control of emergency operations.
 - To provide for the continuity of governmental services.
 - To repair and restore essential systems and services.
 - To provide for the protection, use and distribution of available resources.

- In addition to periodical review, the City shall evaluate the effectiveness of the plan following an emergency. The intent is to determine and correct weakness in the Emergency Operations Plan which were realized during an emergency.



ENVIRONMENTAL ELEMENTS

V-A

CONSERVATION/
OPENSOURCE/
RECREATION
ELEMENT

DRAFT

CONSERVATION/OPEN SPACE/RECREATION ELEMENT¹

I. INTRODUCTION

As described in other elements of this General Plan (particularly the Land Use, Housing, and Population/Economics Elements) Palm Desert, in recent years, has been transformed from a very open desert area to an active residential and commercial community. According to the May 1979 city-wide survey and the Land Use Plan almost every piece of relatively flat land in the planning area has now been committed to an urban use. The only exception is the area designated rural where only one dwelling unit per five acres is permissible and the remaining area is to remain as natural area. (See Land Use Element for further discussion.)

Palm Desert (along with other cove communities) has made a concerted effort to preserve and protect the natural environment during its development. This Conservation/Open Space/Recreation Element is a written description of the City's commitment to, as stated in the National Environmental Policy Act, "maintain conditions under which man and nature can exist in productive harmony, and fulfill the social, economic, and other requirements of present and future generations."

¹Government Code Section 65302(d) calls for a conservation element to embody a plan "for the conservation, development, and utilization of natural resources including water and its hydraulic force, forests, soils, rivers and other waters, harbor, fisheries, wildlife, minerals and other natural resources".

Government Code Section 65560 requires the adoption of "a local open space plan for the comprehensive and long-range preservation and conservation of open space".

Since the conservation and open space elements are closely related, they have been integrated into one overall element. In addition, parks and recreation, a function of open space, is included herein. However, this element deals only with the physical aspect of park and recreation and not with recreational programming, which will be considered when individual park sites are developed.

The purposes and functions of this element are:

1. State the goals, objectives and policies concerning the conservation, development and usage of natural resources, the preservation of open space, and the provision of parks and recreation facilities within the planning area;
2. Inventory the existing natural resources, the various functions served by open space and existing park facilities in the planning area;
3. Evaluate the adequacy of existing park facilities based upon City standards and community needs; and
4. Make recommendations for attaining the stated goals.

It is the intent of this element to:

1. Balance planning activity with environmental considerations;
2. Ensure recognition of the social, economic and aesthetic benefits which accrue from the preservation of open space, the provision of recreational opportunities and the conservation, development and utilization of natural resources.

3. Prevent neglect or destruction of natural resources.

This element serves as a major policy input into the land use and circulation elements. Its concerns relate directly and, in fact, overlap many of the concerns expressed in the public facilities, seismic safety, and urban design/scenic highway elements. Additionally, this element is related to the environmental assessment process. The information provided in this element allows the city planners and local decisionmakers to make an initial assessment as to whether or not a proposed public or private project is likely to have a "significant effect" on the environment as defined in the California Environmental Quality Act.

Including this introduction, the element is divided into five sections. The second section, GOALS AND OBJECTIVES, represents the ends to be achieved by the implementation policies and strategies. Defining terms directly related to this element is the purpose of the third section, DEFINITIONS. The fourth section, PROBLEMS/OPPORTUNITIES, is a brief discussion of issues, problems and opportunities related to this element. The purpose of the INVENTORY OF EXISTING CONDITIONS section is to provide necessary inventory information concerning the conservation and utilization of our surrounding environment. The latter two sections provide the foundation to develop IMPLEMENTATION POLICIES AND TECHNIQUES, the final section of this element. This sixth section describes the means to achieve the goals and objectives of the element.

II. GOALS AND OBJECTIVES

GOALS:

- Create a public system of open space, parks and recreation facilities which will serve the changing needs and recreational desires of the City of Palm Desert, and which will encompass a full range of activities for all age groups on a year-round basis.
- Establish and develop an adequate amount of open space to upgrade neighborhood development, give community scale focus and identity to neighborhoods, and to achieve a natural sense of openness as an integral part of urbanized areas.
- Establish sufficient open space to protect the public health, safety, and general welfare from seismic, noise, water pollution, erosion, and flood hazards.
- Maintain concern for the natural environment as a major structuring factor in the future development of the City.
- Preserve and enhance the quality of life for present and future generations by preventing misuse and degradation of natural resources.
- Conservation and preservation of the physical environment of the entire planning area in order to enhance the relationship between residents and their physical surroundings and to enhance the viability of the natural and human ecosystems.

OBJECTIVE:

- Designate and maintain appropriate natural areas in their undeveloped state at both the city-wide and neighborhood levels.
- Establish criteria to evaluate development proposals, making sure that the criteria contains the flexibility necessary to recognize design and terrain uniqueness of a particular site.
- Develop programs for the implementation of the open space system.
- Protection and preservation of the habitats and ecosystems of existing natural areas.
- Provide for the conservation and more efficient use of energy.

- Provide incentives to encourage developers to use renewable sources of energy, such as solar energy, to provide power to residential and commercial structures.

III. DEFINITIONS

These definitions are provided to give a more complete picture of the factors related to conservation and open space planning and implementation. The definitions provided below are not an exhaustive list of appropriate terms; rather, they represent the terms most often used. The terms and their definitions are as follows:

Conservation: planned management, preparation and wise utilization of natural resources and the preservation and/or enhancement of the environment.

Open Space: as defined in Section 65560 of the Government Code uses include:

1. the preservation of natural resources,
2. the managed production resources,
3. for outdoor recreation, and
4. for public health and safety (e.g., areas which require special management or regulation because of hazardous or special conditions such as earthquake fault zones, flood plains, etc.).

Preservation: the maintenance and/or protection of the environment in its existing and/or natural state.

Ecology: the totality or pattern of relations between organisms and their environment.

Environment: there are two basic and interrelated meanings:

1. the complex meteorological, soil and biotic factors that act upon an organism in its ecological community;
2. the aggregate of physical, social and cultural conditions that influence the life of an individual or community.

Natural Resources: this includes all mineral and fossil fuel resources, air and water, flora and fauna, and land forms.

Heritage Resources: these are significant resources of history, architecture, archeology, and culture that poses integrity of location, design setting, materials, workmanship, and feelings that

1. are associated with events or with the lives of persons significant in the community's past, and
2. embody the distinctive characteristics of a type, period, or method of construction.

IV. PROBLEMS/OPPORTUNITIES

To develop adequate and appropriate implementation strategies and policies, a discussion of the various problems facing the community and opportunities for their resolution must take place. Such a discussion is the purpose of this section.

This section represents an integration of work completed by various scholarly efforts and governmental entities.

PROBLEMS:

- Urban Expansion: The expansion of urban uses onto non-urban lands can cause a number of interrelated problems.
 1. The expansion of primary urban uses to non-urban land.
As stated in the Land Use Element and shown on the Land Use Map, almost all of the vacant land, still in its natural state, is committed to some type of urban use.
 2. Increased demand for resources due to urban expansion, life style changes, technology, and population growth. These include demands for energy, water, building materials, and other consumer and capital goods.
 3. Scattered "leapfrog" urban development forcing the inefficient extension of urban services across undeveloped land to serve the newer areas. This also results in inefficient uses of transportation energy to travel among separated areas. It increases urbanization pressures on the surrounding areas and makes it very difficult to use this land for non-urban purposes.

4. Increasing production of wastes and pollutants exceeding natural absorption capabilities of regional ecosystems without institution of very complex and costly disposal techniques. Pollution of regional ecosystems then further diminishes resource production capabilities and quality of life.
- Increased Demand for Outdoor Recreation: Public interest in outdoor recreation, such as camping, hiking, nature study and other outdoor activities, increases human pressures on desirable natural areas.
 - Governmental and Institutional Fragmentation: As discussed in other elements, the large number of governmental entities involved with providing open space, recreation and conserving and protecting the surrounding environment often leads to conflicting programs, duplication of effort and difficult interagency coordination.
 - Destruction by Inappropriate Use: Another open space problem concerns the overuse or misuse of outdoor recreation and other open space by users. Many of the most desirable open space lands are subject to heavy over use by the public or outright destruction by unthinking persons or vandals which erodes the open space values most people seek.
 - Limited Funds: The provision of open space for public use can be expensive and governmental funds for this use are

limited. Voters, in recent years, approved Propositions 4 and 13 which greatly reduced the ability of state and local government to raise the necessary funds to adequately provide for open space or recreation.

OPPORTUNITIES:

- Wider Intergovernmental Cooperation: Both formal and informal mechanisms exist for increased coordination among city, county, state and federal governments. Examples on the local level include CVAG and SCAG.
- Better Utilization of Plans: There is an increasing acceptance of planning as a decision-making tool. State legislation mandates the preparation of certain plan elements and zoning conformance. Recent court decisions strengthen the ability of local agencies to control land use through police powers.
- Increased Awareness: The general public has gained a new awareness of and need for open space. There is an increased desire for outdoor recreation and a heightened appreciation for the aesthetics and functions of open lands. People are also becoming more aware of the dangers of building on unsafe lands and are looking with greater skepticism on the desirability of further urban physical expansion. This new awareness may aid greatly in the preservation of open space.
- Innovation: The aforementioned problems allow for local planners and decisionmakers to either create new tools or refine existing tools to deal with the many problems confronting the community.

V. INVENTORY OF EXISTING CONDITIONS

As stated in the introduction, the purpose of this section is to provide necessary information concerning the conservation and the utilization of our natural resources and the provision and preservation of open space areas. The information presented herein provides the foundation for the policies and strategies to be described and discussed in the next section.

This portion of the element is divided into four sections. The initial section describes the natural context for conservation and open space planning in Palm Desert. The second section discusses the functional characteristics of an open space system. The remaining two sections describe and analyze existing conditions in the areas of conservation/open space and recreation.

A. NATURAL CONTEXT FOR CONSERVATION/OPEN SPACE PLANNING IN THE PALM DESERT PLANNING AREA

The planning area consists of three natural physical areas which provide the backdrop for conservation/open space planning in Palm Desert.

1. Northern Valley Floor: This area primarily consists of the area north of the Whitewater River to Interstate 10. This is a relatively flat, sandy area subject to moderate to severe wind hazards. Major features include creosote scrub and sand dunes.
2. Central Valley Floor: This area consists of the urbanized area of the planning area. Native vegetation is somewhat

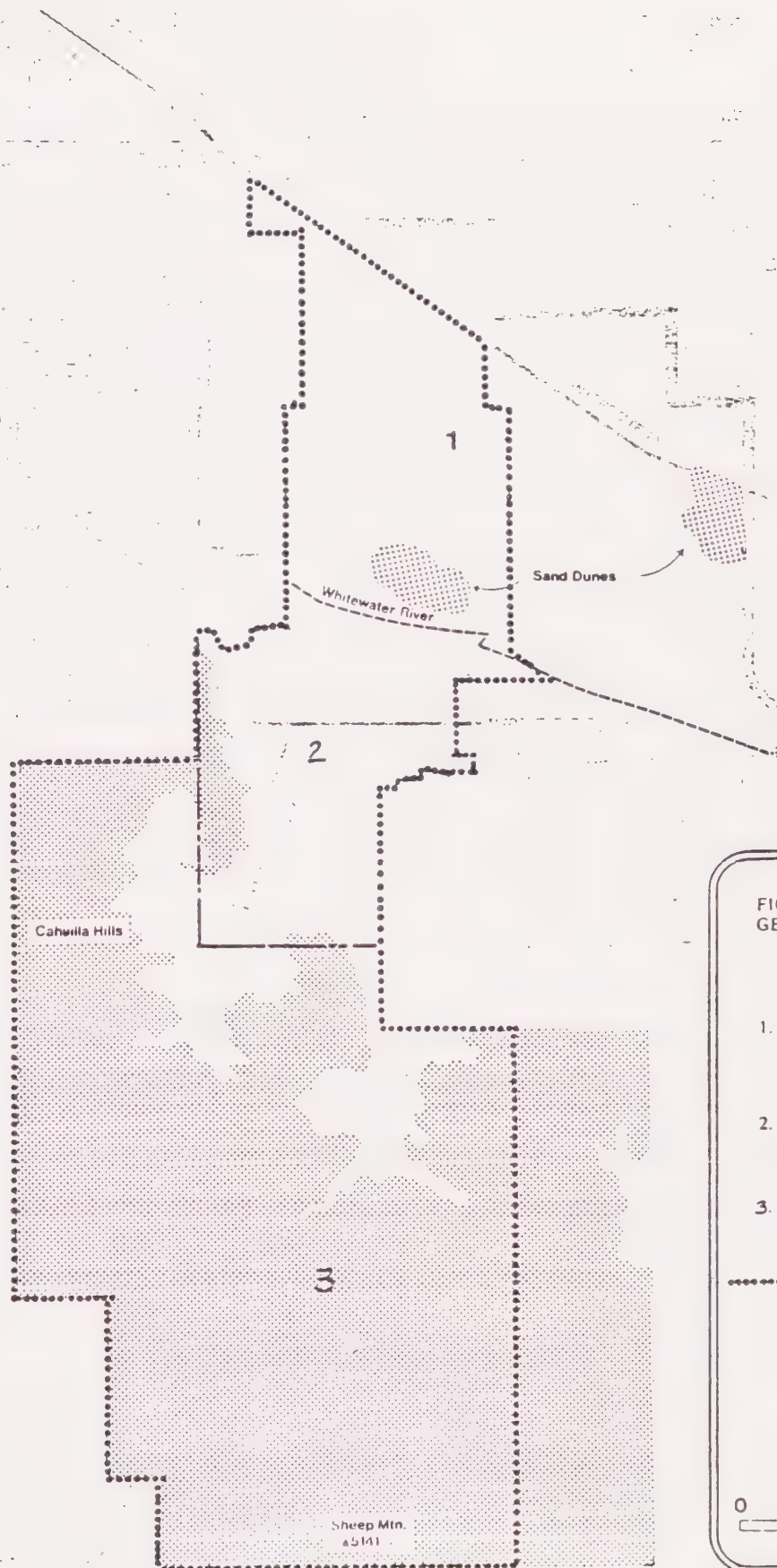
more abundant than on the valley to the north. This zone includes the bajada, a nearly flat surface of joined erosional deposits along the base of the San Jacinto Mountain Range.

3. San Jacinto Mountains: This mountain range rises sharply just south of the City. The mountain environment consists of four basic life zones:

- (a) permanent and seasonal water, i.e., the bottoms of the canyons which form this zone's drainage pattern;
- (b) the low desert which begins at the edge of the foothills and rises to about 1000 feet;
- (c) the high desert, between 1000 and 3000 feet; and
- (d) pinyon scrub with some juniper from 3000 feet to 5141 feet (the top of Sheep Mountain) which is the apex of the planning area.

B. FUNCTIONAL CHARACTERISTICS OF OPEN SPACE

Open space uses, as already defined, include recreation, preservation of natural resources, and special regulations to protect the community's health, safety and general welfare. Since "open space" has many uses, an open space system becomes a component in the physical development of the community. For example, the provision of park and recreation sites is a part of the Land Use Plan. In addition, special development regulations have been established to maintain an adequate amount of open space not only for recreational purposes in planned



residential developments but also in areas of special concern such as flood plains and hillside preservation.

Furthermore, an open space system has a number of community design characteristics. An open space system helps to provide a balancing element of natural landscape with man-made environment or serve as a linkage between developments or different land uses.

C. CONSERVATION/OPEN SPACE INVENTORY

This section of the element consists of an inventory of local resources. The purpose is to describe and analyze the local setting and the various components in which conservation and open space occur. This information, in conjunction with data already presented, establishes the foundation to develop implementation policies and programs.

1. Air Quality:

The quality of air has been cited as a main reason for residing in or visiting the Coachella Valley. As more and more development occurs throughout the Valley, it is anticipated that air quality will incrementally deteriorate.

Southern California Association of Government defines air pollution as airborne substances that are toxic, irritating, or otherwise harmful to man, animal, vegetation, or property. There is a major distinction between primary and secondary air pollutants. Primary pollutants are

those emitted directly from man-made sources and include hydrocarbons, carbon monoxide, oxide of nitrogen,² sulfur oxides, and particulate matter. Secondary pollutants--oxidants and some particulate matter--result from chemical reactions involving primary pollutants emitted into the air.

There is a strong indication that the high concentration of air contaminants found in the Coachella Valley originates from the Los Angeles area. In 1973, a study, which included the Antelope Valley portion of Los Angeles County, the Victorville area in San Bernardino County, and the Coachella Valley, produced evidence suggesting that air pollution is transported from the South Coast Air Basin and contributes to the high oxidant concentrations of the three areas.

Although smog is primarily attributable to the pollution overflow from the Los Angeles basin, local sources such as the Palm Springs Airport, Interstate 10, South Pacific Railroad, and additional cars, also contribute to the growing pollution problem. The South Coast Air Quality Management District monitors air quality in Palm Springs and Indio and can be assumed to indicate air quality in Palm Desert. Air quality data for 1976 and 1978 are presented in Table 1 for the two aforementioned stations.

² The chemical reaction of nitrogen mixing with oxygen in the atmosphere forms that brown layer in the air.

TABLE 1
SUMMARY OF 1976 AND 1978 AIR QUALITY DATA
PALM SPRINGS AND INDIO STATIONS

AIR CONTAMINENT	STATE STANDARD	DAYS STATE STANDARD EXCEEDED			
		PALM SPRINGS		INDIO	
		1976	1978	1976	1978
Oxidant (ozone) O ₃	0.10 ppm 1 hour	103	103	57	83
Carbon Monoxide CO	10.00 ppm 12 hours	0	0	0	0
Nitrogen Dioxide NO ₂	0.25 ppm 1 hour	NM	NM	0	0
Sulfur Dioxide SO ₂	0.05 ppm 24 hours	NM	NM	ID	0
	0.50 ppm 1 hour	NM	NM	ID	0
Particulate Matter	100 UG/M ³ 24 hours	5	12	29	43

NM: Not Measured

ID: Insufficient Data

SOURCES: 1976 Riverside County Planning Department
1978: Ultrasystems, EIR-Palm Desert Town Center

As can be discerned from the above Table, oxidant and particulate matter are the major air contaminate in the Palm Springs/Indio area. Oxidant, or ozone, is a colorless, pungent, toxic gas produced by complex atmospheric reactions involving oxides of nitrogen, reactive hydrocarbons, and ultraviolet energy from sunlight. The internal combustion engine is the major source of this pollutant. In general, the high particulate levels experienced in the Coachella Valley may be attributed to wind erosion of soils. Particulate also result from many dust and fume producing industrial and agricultural operations, from combustion processes (including auto-

mobiles), and from photochemical reactions. The pollutants may cause adverse effects to the respiratory tract, lung function and vegetation.

The implementation policies and strategies section will discuss appropriate tools the City could adopt to guarantee acceptable air quality.

2. Energy:

The full impact of the energy situation is now being realized as energy costs continue to increase. With the sun nearly always available, the desert climate of Palm Desert and the entire Coachella Valley offers its residents excellent opportunity for solar energy utilization.

As stated in Energy Conservation Project, a study completed for Indio, "Whether we intentionally try to utilize the sun or not, it is working everyday. The year around warm weather caused by the high levels of solar heating keeps the ground warm....also, every south-facing window into which winter sun is admitted is a 'solar collector' helping to keep natural gas usage down. Finally, the warm climate helps to keep pools more naturally warm, thereby reducing energy use for pools or even making it unnecessary." (p.96)

Except for a few instances, local government has not played an active role in energy conservation issues despite the fact that all development projects are approved on this level. The Indio study stated that implementation of energy conservation standards could result in a 50% reduction in consumption and could have a significant impact on energy resources, electrical energy supply, and dollars spent on cooling and heating.

Many of the regulations governing development projects were developed and adopted at a time the full extent of the energy crisis and possible mitigation measures were not known. Studies have shown that lot size, landscaping, street design and building placement promote either consumption or conservation of energy. Other elements of the General Plan will address energy to a greater extent. However, the City should extensively review present regulations to guarantee energy conservation.

In an attempt to reduce energy usage statewide, the California Legislature recently approved "Energy Conservation Standards For New Residential and Non-Residential Buildings".³

³The standards are located in Title 24, Part 6 of the California Administrative Code.

With the adoption of this General Plan, it shall be the intent of Palm Desert to bring solar energy into a more prominent role in the local planning process. As described in the Energy Element, the various administrative and physical techniques available for local government to encourage energy conservation are well documented in many governmental and non-governmental publications. Many of the techniques available have been available for a long time. No new techniques need to be invented, but rather existing tools need to be refined to include energy.

3. Flora/Fauna:

Various sources have documented the existence of unique or rare plants and endangered or rare species of animal. These sources include the General Plan adopted in 1975, the Palm Valley Stormwater Channel Area Specific Plan, and data collected by Conmarc for the Master Environmental Assessment project completed by Coachella Valley Association of Governments. The following is a summary of their findings in this area.

- (a) Conmarc identified the existence of two unique or rare plants located in the planning area; they are Diad (Ditaxis Adenophora) and Cynanchum Utahensis. The latter plant is not found anywhere else in the Coachella Valley. Diad is found in two locations--one in Palm Desert and the second near Indio. The

Palm Valley Stormwater Channel Plan detailed fauna located west of Highway 74 (p.10). The predominant desert vegetation is creosote scrub.

- (b) Unique wildlife is of special concern in the planning area. There are four rare or endangered species found in the immediate area: California Bighorn sheep, Coachella Valley Fringe-Toed Lizard, Flat-tailed Horned Lizard, and Prairie Falcon.

The California Bighorn Sheep occupies virtually the entire mountain zone from about 1000 feet to the top of Sheep Mountain. The Coachella Valley Fringe-Toed Lizard is threatened with extinction as its habitat range is being limited by development activities. An 18 square mile critical habitat area for the fringe-toed lizard has been established in the Thousand Palms Area.

The remaining fauna of the planning area is generally located within the non-buildable ravine area. The Palm Valley Stormwater Channel Area Specific Plan lists the reptilian and mammalian fauna found in the area. (p.11)

4. Heritage Resources:

As defined earlier in this element, heritage resources are significant resources of history, architecture, archeology,

and culture. According to the Historical Society of Palm Desert, the following list indicates possible sites for historic preservations:

- Jake Swafford House
- Community Church on Portola
- Post Office (original)
- Washington School
- Palm Village Land Co.
- Palm Desert Little Theater (Baptist Church)
- Stables
- Desert Magazine Building
- Sun Lodge Colony
- House that Laughs Built
- Shadow Mountain Club
- Hopalong Cassidy House
- Twin Pines Lodge
- Bing Crosby House
- Edgar Bergen House

Two sites of archeological significance have been located in the South Sphere Area according to maps constructed by Conmarc. The exact location of these sites are not indicated in order to prevent individuals from pilfering the sites of artifacts.

C. RECREATION INVENTORY

Providing recreation area is a proper function of open space planning. In 1978, the City adopted a parks and recreation element; its findings and recommendations are considered still valid. The purpose of this section is to update the appropriate sections.

Table 2 lists existing and proposed recreation areas with the planning area. Of the total acreage, about 570 acres constitute city parks (300 acres are part of the proposed Dead Indian Canyon Park), 33 acres of school grounds, and 18 acres of miscellaneous facilities. This analysis excludes the numerous recreational areas and facilities in planned residential developments, mobile parks and private facilities.

Palm Desert and the Desert Sands Unified School District are presently discussing the possibility of the City leasing up to 10 acres of the proposed high school site for a sports center. According to the Capital Improvement Budget, the sports center should be completed in the 1981/1982 fiscal year.

Four additional parks are planned for areas outside the present City limits. Three are located in the North Sphere and one is located in the South Sphere. The following map

TABLE 2
RECREATION FACILITIES

<u>EXISTING DEVELOPED SITES</u>	<u>ACREAGE</u>
Palm Desert Community Park	8.8
Palm Desert Community Center	29.0
Washington School	3.0
Subtotal	<u>40.8</u>

EXISTING UNDEVELOPED SITES

Ironwood Park	15.0
Civic Center Park	6.0
San Pascual Park	3.0
Subtotal	<u>24.0</u>

PROPOSED SITES

Sand Dunes Park*	120.0
Date Palm Reserve	40.0
Sports Center	10.0
Unnamed Park**	9.0
North Sphere Parks	30.0
Dead Indian Canyon	300.0
Subtotal	<u>509.0</u>

SPECIALTY

College of the Desert	15.0
Western City Entrance	1.0
Middle School Complex	15.0
Haystack Facility	15.0
Subtotal	<u>46.0</u>

QUASI PUBLIC FACILITIES

Teen Center	.8
Fetch Center	.7
Subtotal	<u>1.5</u>

TOTAL SITES (ACREAGE)

621.3

* A few acres have already been dedicated to the City from surrounding development.

** This park is located at the northeast corner of Monterey Avenue and Country Club Drive.

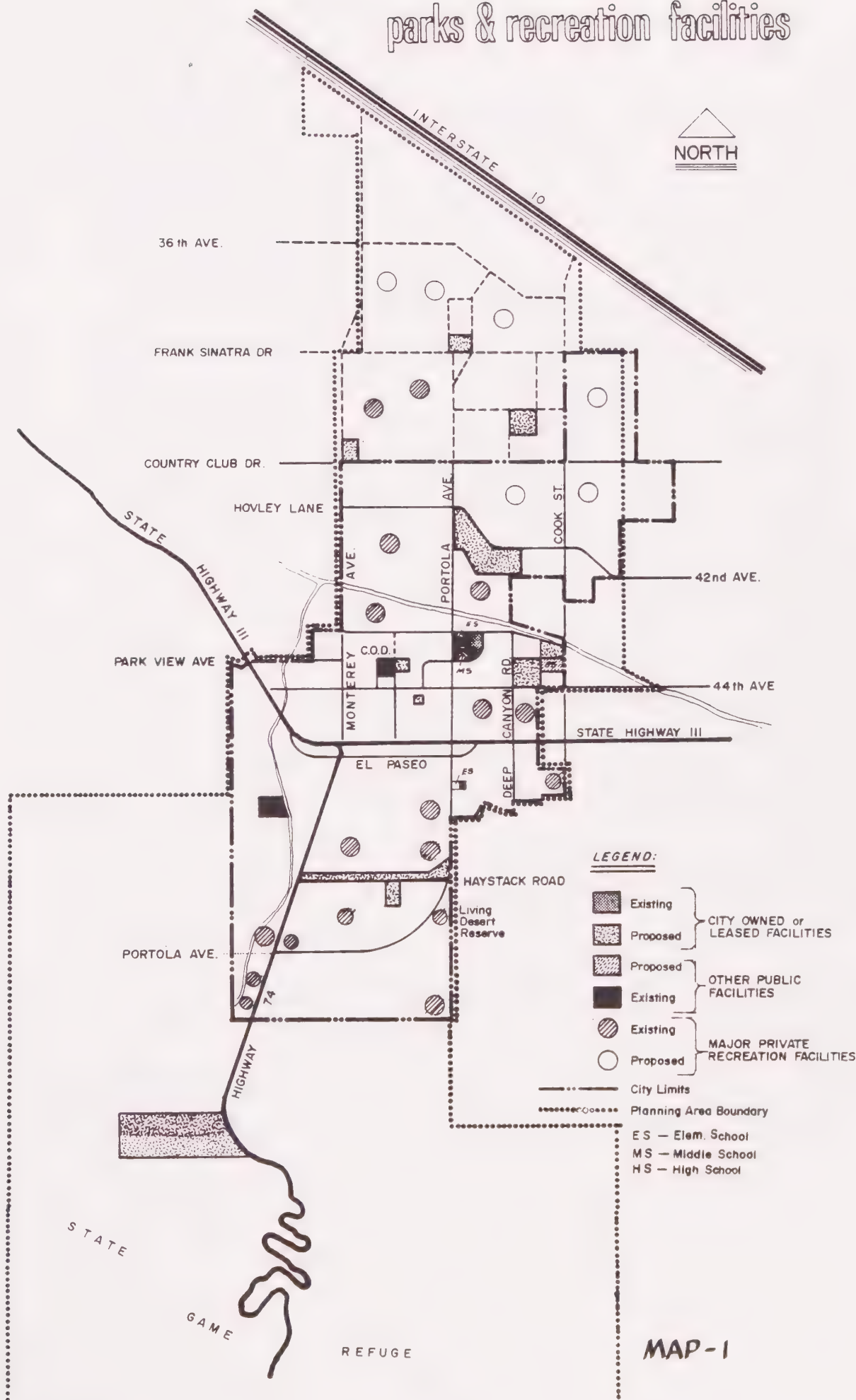
indicates the location of all existing and proposed park sites.

In addition to City parks, there are other recreation opportunities within the immediate area for residents. Most of the private developments provide recreational facilities (golf courses, tennis courts, handball courts, swimming pools) for their residents. The local canyons, regional parks, and lakes provide ample opportunity for local residents to engage in hiking, fishing, and camping. Finally, in addition to the local bike trail, a regional bike trail along the Whitewater River has been proposed, but does not appear feasible to implement.

The Army Corps of Engineer has proposed a recreation element in conjunction with flood control along the Palm Valley Stormwater Channel. The Corp has proposed a bike trail along the Channel. Due to the financial policy of the Corp, they can not guarantee available funds for a rest area at Cat Canyon Creek and irrigation for landscaping. The City should accept responsibility for the construction of a rest area at Cat Canyon Creek and for the cost of planting and maintaining landscaping along the Channel.

An adequate park system is composed of a variety of park sizes with service area ranging from the immediate neigh-

parks & recreation facilities



borhood to the entire region (regional facilities are usually provided through a regional park district).

Tantamount to the development of parks of varying size is the establishment of standards. Standards are basic to the development of parks and recreation plans. A uniform standard applied to recreation open space is not the ultimate answer; it does, however, represent a means for measuring the adequacy of service being provided by the local park system to any part of the City or to the City as a whole. Moreover, a uniform standard can aid in the development of programs for achieving the desired level of service.⁴ Standards for Palm Desert's parks were developed in conjunction with the Parks and Recreation Element, adopted in July, 1978. These standards are addressed in the Implementation Policies and Strategies section of the element.

In general, it is the intent of the City to provide approximately 6.5 acres of park land per thousand residents. Although it is much lower than the prevalent national standard of 10 acres per 1000 population, it is based on the awareness of the large number of private recreational developments in the area. With a projected population of 50,000 325 to 360 acres of recreational area is needed. Based upon

⁴City of Torrence, Environmental Resources Element, 1974 p.37

the proposed additions, it appears that the City may exceed the recommended standard per 1000 population if all of the proposed sites are acquired and developed.

Recently, the City adopted a list of recreational needs based on the findings of the 14-member Citizen's Recreation Advisory Committee. The emphasis of future City action in recreation planning should be in implementing the needs list. The following is the needs list as adopted by the Parks and Recreation Commission, the Planning Commission, and the City Council.

RECREATIONAL NEEDS

The following list of recreational needs represent the findings of the 14-member City of Palm Desert Citizen's Recreation Advisory Committee. The needs are defined and listed in order of priority.

Money- medium of exchange. For the purpose of this report and as a recreational need it is the medium of exchange for acquiring land and facilities. It may also be considered the means by which recreational programs and facilities are administered, operated, and maintained.

Community Sports Center- a multi-purpose facility intended to provide space, both indoor and outdoor, for active sports related activities such as baseball, soccer, gymnastics, swimming, etc.

Community Level Park- a multi-purpose facility to be used for passive and/or low organized active games. Recreational and/or leisure time activities would include: socials, picnicing, playgrounds, outdoor table games, gardens, etc.

Community Center- a multi-purpose facility for use as a teen and/or senior center; recreation administration center; theatre; arts and crafts center; and other passive indoor activities. Provides a meeting place for people with similar interests but often of varying social, religious, and political backgrounds, who come to play, to learn, or to work together for personal satisfaction and/or community improvements.

Multi-Purpose Trail System- an integrated City-wide system of trails for bicycling, hiking, and horseback riding. The system would be comprised of both exclusive and shared rights-of-way and provide the opportunity for linking together various valley-wide trail systems.

Mini-Parks and Rest Areas- small open space areas intended to provide visual as well as physical links between major recreation facilities. Composed largely of natural vegetation and benches, the mini-parks provide a bit of nature in a congested neighborhood, a restful breathing spot in a business area, or a temporary substitute for lacking or inadequate public recreation areas.

Natural Areas- areas where flora, fauna, and land forms are protected in their natural environment for the purpose of scientific and human enjoyment. Relatively large tracts of land with sections made available for hiking, camping, and nature study.

Youth Camp- open space area provided for overnight recreational camping for youth. It is intended that this facility would be located out of the City of Palm Desert, and used primarily during the summer months.

Acquisition could be one of two methods: purchase or dedication. Purchase is the City buying the site from the owner at market value. Money for purchases comes from Federal or State grants, local general fund or by the payment of in lieu fees, which is deposited in a special City account for park and recreation use, by the developers of residential property. Dedication is the developer relinquishing a portion of his/her property to the City as a grant or as a condition of development.

Various park sites, such as the proposed park at the northeast corner of Monterey Avenue and Country Club Drive and more than half of the Sand Dunes Park, should be acquired through dedication as development occurs.

Park development should occur as sites are obtained. The major emphasis of park development in the planning area should be to supplement existing and potential private facilities. In addition to providing active and passive recreational areas, park development should consist of preserving natural and unique resources; this is the intended purpose of Dead Indian Canyon.

VI. IMPLEMENTATION POLICIES AND TECHNIQUES

A. INTRODUCTION

Legislative bodies at both the federal and state levels have responded to the needs of conserving and preserving our natural resources through the enactment of legislation such as the Quimby Act.⁵ However, federal and state actions are not enough. Since most physical planning decisions are made on the local level there must be a commitment and a willingness on the part of local officials to take constructive action if the quality of the natural environment is to be preserved. Using these beliefs as guides, it is the purpose of this section to describe the means in which the goals and objectives of this element can be implemented.

The following material is divided into two parts: Implementation Policies and Implementation Techniques. The former refers to specific actions the City shall take to implement the goals and objectives of this element. The latter refers to the specific tools available to ensure implementation. In most cases the tools are already in existence and the intent is to broaden and/or refine their usage.

B. IMPLEMENTATION POLICIES

In the area of Conservation/Open Space, the City shall:

- Support the continued maintenance and development of

⁵ The Quimby Act requires the dedication of land, the payment of fees in lieu thereof, or a combination of both, for park or recreational purposes as a condition to the approval of a final tract map.

the Living Desert Reserve as a wildlife preserve and museum of the desert's natural environment.

- Support the continued maintenance and development of the Philip L. Boyd Deep Canyon Research Center as a wildlife preserve and natural laboratory.
- Support the maintenance and development of the Big Horn Sheep Refuge managed by the University of California, Riverside, and the California Department of Fish and Game as an enclosure to better understand the environmental needs of this rare species.
- Support the preservation of the Desert Slender Salamander, the Fringe-Toed Lizard, Flattailed Horned Lizard and all other rare or endangered species.
- Protect existing and potential archaeologic sites in the planning area. Consider the maintenance of these resources when development occurs, to be designated as either temporary or permanent open space.
- The determination of whether a site, or portion of a site, is to be permanently preserved as open space should be based on evidence provided by a professional archaeologist. This evidence should be compiled from a thorough investigation of the site in question.

- Encourage the preservation of public and private buildings which are of local historical or cultural importance.
- Encourage educational programs or lectures concerning the role of plant life in the urban ecosystem and the economic value it represents to property owners as a means of preserving trees and other vegetation on private property.
- Undertake responsible monitoring systems such as requirements for EIRs directed toward the identification and conservation of existing forms of energy.
- Encourage and support research into alternative, non-polluting forms of energy such as solar energy.
- Promote the utilization of renewable energy and natural energy sources to lessen dependence upon outside producers.
- Continue to support CVAG in the operation of a Master Environmental Assessment program that will maintain an inventory of natural resources and service facilities together with an ongoing evaluation of projected development, various development patterns and alternative growth management strategies.

- Study the feasibility for preservation of all existing date palm groves designated in the Land Use Element as both agricultural reserves, and/or community parks. The viability of development within select groves should be considered as long as private development maintains the character of the groves.
- Make the preservation of scenic vistas an integral factor in all land development decisions over which the City has jurisdiction.
- As adopted in Palm Valley Stormwater Channel Specific Plan open space would generally include all of that land located above the 20% slope, all of the land currently in the ownership of the Bureau of Land Management and the Stormwater Drainage Channel and all other land deemed appropriate by the City.

In the area of Parks and Recreation, the City shall:

- Ensure that new development will provide the necessary park and recreational space to serve the needs of the additional population.
- Plan for land acquisition that will make up the present deficiency of park and recreation space.
- Establish a balance of land use for utilizing active, passive and cultural recreational areas, and natural protected areas.

- Maintain a balance between generalized and specialized parks.
- Place emphasis upon supplementing private recreational facilities.
- Maintain natural areas wherever possible and practical.
- Acquire or reserve land for park facilities as far in advance of development of an area as possible.
- Park facilities should be distributed throughout the entire City as related parts of a unified, balanced system, with each site centrally located with its service area and establish as many dual purpose facilities as possible.
- The design of activity areas and facilities shall be regarded as flexible so as to be adaptable to changes in the population served and in the recreation program offered to meet changing needs.
- The planning, acquisition, development and administration of park facilities should reflect the fullest possible coordination with other public agencies to insure that the citizens receive the maximum from their public dollars.
- Parks should be located to serve the recreational needs of

residents of various areas and to stimulate social interaction within the area.

- If appropriate, precise definition of specific facilities at the neighborhood level shall be done in the following sequence:
 1. Acquire the land in areas indicated in Land Use Element;
 2. Survey residents of the service area as to their desires in terms of development within the financial limitations of the City;
 3. Develop park design;
 4. Planning Commission and Park and Recreation Commission conduct joint public hearings on the design, and,
 5. Request inclusion of approved design in the City's Capital Improvement Program.
- Wherever feasible, the City shall utilize joint power agreements with other public agencies and/or non-profit agencies for park development and maintenance.
- Continue to use the standards adopted in the Parks and Recreation Element of July, 1978, as the standards for park and recreation development in the community. The standards are listed below.

Neighborhood Parks

- Land dedicated for neighborhood recreation park purposes may be dedicated to a community association for private maintenance or to the City for public maintenance, at the option of the City. Standards applicable to public neighborhood parks shall be applied when said neighborhood parks are privately owned and maintained.
- Entire park areas shall be graded and improvements may include adequate drainage, lawn, shrubs, trees, automatic irrigation systems, concrete walkways and walkway lights.
- Further, the detailed landscape and equipment specifications employed by the City shall be incorporated.
- Neighborhood parks shall be located centrally to the residential development served.
- When centralization can be achieved, neighborhood parks should adjoin an elementary school or school site. Such parks shall be a logical extension of the school ground.
- Minimum size of each neighborhood park shall be one (1) acre and not exceed twelve (12) acres.
- Service area of neighborhood parks shall be one quarter

to one half mile; in no case shall the farthest dwelling unit served be a greater distance than three quarters of a mile.

- All improvements shall be authorized by the Parks and Recreation Commission services according to these adopted criteria.
- Examples of minimum improvements could include the following:
 1. Entire area shall be consistent with the proposed character of the area and shall include grading, landscaping and provisions for adequate drainage.
 2. Foot paths shall be of conditioned local materials.
 3. One two-acre site which shall be planted and maintained as a grassy area.
 4. Two of the following: Children's play area in addition to tot lots; baseball/softball, football area (at the rate of 1 baseball diamond per 6,000 people; 1 softball diamond for each 6,000 people; 1 football/soccer field for each 1,500 people); and, basketball/volleyball areas.
 5. When a neighborhood park serves a predominantly retirement community, a multi-purpose community center building may be provided in lieu of the recreational improvements required in the above item.

- In privately owned neighborhood parks, public access shall be limited to greenbelts, paths and trails, and access restricted to homeowners and their guests. Under agreement with the homeowners' association, recreational facilities such as, but not limited to clubhouses, changing rooms, pools, tennis courts, basketball and volleyball courts and open playfield activities, may be used by the general public.
- When development is impending and fees will be paid in lieu of dedication, the City shall, whenever possible, obtain fixed price options to acquire the land to be developed as a neighborhood park. Said options shall be exercised when fees are collected. When such options are held by the City, the fees in lieu of dedication may be determined by a prorated share of the total option price.
- Adequate parking facilities shall be provided.

Community Parks

General development standards for community parks:

- Vary in size from as small as ten (10) or six (6) acres if combined with another facility, to as large as thrity (30) acres.
- Service areas of community parks shall be one half to three miles or a maximum of four square miles within the city.

- Whenever possible, community parks shall be oriented towards serving the needs of one or more neighborhoods.
- Community parks should provide such facilities as:
 - 1) Gym; 2) passive open space; 3) bicycle motorcross;
 - 4) field oriented activities such as baseball, football, soccer and other comparable active sports.
- Such parks may include special purpose areas such as, but not limited to, ecological preserves, municipal golf courses, picnic areas and gardens, providing that the park and recreational needs at the community level, in the evaluation of Parks and Recreations Commission, have been met.
- Community Parks can provide a recreation center, the facilities including but not limited to multi-purpose class and assembly rooms, food preparation facilities, general storage spaces, administrative office spaces, rest rooms and change facilities and/or gymnasium.
- Adequate parking shall be provided.

Tot Lots - Less than one acre

Encourage the development of tot lots within neighborhoods where residents desire supplemental recreational facilities. These facilities could be privately owned. Said tot lots

should be based on the following general standards:

- One multi-purpose play structure shall be installed in each tot lot.
- When tot lots are located next to a public street, a fence with vertical members not more than twelve (12) inches apart shall be constructed.
- Play areas shall be constructed of drained sand and/or grass. All sand areas shall be at least 18 inches deep.
- Play areas shall be adequately landscaped to provide shade and relief from the sun, and be in the spirit and intent of this section.
- A watering system shall be provided to wet the sand and plantings.
- A minimum of two benches shall be provided and placed in such a manner as to facilitate supervision of play within the tot lot site.

C. IMPLEMENTATION TECHNIQUES

This section discusses the various administrative tools available to the City to implement the goals, objectives, and policies of this element. The available techniques fall into two general categories: administrative and acquisition.

1. Administrative Techniques

- Zoning: The Zoning Ordinance is the most powerful tool available to implement the goals, objectives, and policies of this element. An exercise of the police power, it is used to "protect the health, safety, morals, and welfare" of the community. While the General Plan designates the proposed location of open space and recreation areas desired by the community, it is through the zoning ordinance that the City establishes open space standards in residential development.
- Subdivision Regulations: These regulations are used to assure that large development projects are in compliance with the General Plan, the Zoning Ordinance, and Building Codes. Regulations are used to provide for public services such as open space and parks and recreation. These regulations, along with the Zoning Ordinance, should be reviewed to ensure that they implement the goals, objectives, and policies of this element.

The present regulations were developed and adopted at a time the full extent of the energy crisis and possible mitigation measures were not known. Studies have shown that lot size, landscaping, street design

and building placement promote either consumption or conservation of energy. These regulations should be reviewed and, if necessary, changed to promote energy conservation while still maintaining and providing for social needs (privacy, security, neighborliness) and aesthetics.

- Environmental Impact Review: State legislation (CEQA) provides cities with the opportunity to critically review development projects. This review allows local government to consider the possible adverse and/or beneficial impacts individual projects and their design may have on social and physical environments of Palm Desert. The City's planning process requires developers to complete an Environmental Assessment Form to determine possible adverse impacts prior to formal filing of development plans. This form should be periodically reviewed to ensure that various concerns, as addressed in this and other elements, are covered.
- Site Plan Review: The planning process provides an opportunity for the City to critically inspect and review every development plan that is proposed. The review evaluates the proposal's compatibility with the surrounding environment and adherence to provisions of the Municipal Code. It is imperative that the review

consider the placement of windows, street design, landscaping, and the siting of buildings since all play a major role in conserving energy or utilizing solar energy.

- Capital Improvement Program: A five year budget program which contains a projection of the local government's expenditures for acquisition and development of public facilities, including parks. The present Capital Improvement Program includes park development as a component.

2. Acquisition Techniques

Although the main purpose of acquiring land would be for parks and recreation, land could also be obtained for conservation and open space reasons. As describe below, five methods are available to acquire land.

- Dedication of Land or Payment of Fee in Lieu Thereof:
The City's subdivision regulation states that, in accordance with the adopted General Plan, the City Council may approve a final map with the condition that a developer "shall dedicate land, pay a fee in lieu thereof, or combination thereof, at the option of the Council, for park or recreation purposes."
- New Construction Tax: All new construction is assessed at forty cents (\$0.40) per square foot. This tax is used

for the acquisition and development of such public facilities as parks, playgrounds, and public structures.

- Acquisition in Fee: Purchase, condemnation, donation, and dedication processes may be used to obtain property for parks and recreation areas.
- Existing Revenue Sources: At times, expected expenses do not materialize, opening up potential revenue from existing accounts. Whenever practical, a portion of these funds should go to park development.
- Federal/State Grants: There are a host of Federal and State grants available for park acquisition and development. However, the competition for available dollars is fierce. Although such a situation exists, the City shall continue to review available Federal and State funding sources.

V-B

ENERGY
ELEMENT

DRAFT
ENERGY ELEMENT¹

I. INTRODUCTION

A major challenge for governments at all levels is the continuous search for long range permanent solutions to the current energy crisis, which consists of availability of energy supplies and the increasing cost of energy. The continuation of the crisis can have implications on the quality of urban life and the future development of Palm Desert. Research has shown that communities can improve the efficiency of energy use and reduce local consumption of fossil fuels, such as oil, through the proper utilization of land use controls and the planning process. This Energy Element is a response to that challenge.

A. PURPOSE

The primary intent of this element is to provide the necessary planning (gathering and analyzing data, establishing goals and objectives, and formulating implementation policies and programs) to improve the planning process to make the City energy efficient.

One general direction of this element is to discuss how buildings could be designed and how land use controls tools, such as zoning, could be used to reduce the dependence on fossil fuels for heating and cooling. Solar energy is the primary alternative resource considered in this element.

¹This element is permissible under Section 65303(k) of the Government Code. The section allows communities to consider "additional elements dealing with other subjects which in the judgement of the planning agency relate to the physical development of the county or city."

This element recognizes that improving energy efficiency is a relatively recent phenomenon, the general policy subject needs to be addressed to provide direction to the City Council, various City Commissions, developers, and others expressing interest in the subject.

B. RELATIONSHIP TO OTHER ELEMENTS

All of the elements of the General Plan are to some degree, interrelated and interdependent to one another. The current energy situation has direct implication on the local economy, housing programs, land use, transportation systems, and urban design. For example, the high cost of energy could adversely impact the local economy since the situation reduces the discretionary income, or income spent on non-essential items (e.g., consumer goods). The high cost of energy could also deprive housing to potential residents by making the total housing cost beyond some income ranges.

Although state law requires internal consistency within a General Plan, the potential for conflicts between energy and other elements exist. For example, a major goal of the Housing Element is to increase the availability of low and moderate and affordable housing units. However, improving energy efficiency may increase the cost of housing in the short run (over the long run, energy cost savings would be realized) which could disqualify potential homeowners from securing a mortgage loan. Mitigating measures to reduce potential conflicts would have to be resolved at the time development proposals are reviewed.

C. DIVISION OF ELEMENT

This element, as described below, is divided into four sections.

- Goals and Objectives: This section represents the ends to be achieved by this element.
- Definitions: This section defines terms commonly used in this element.
- Background Information: This section provides two sets of data that are essential for the development of energy programs and policies. Data includes present and projected levels of energy consumption and climatic and topographic characteristics of Palm Desert.
- Planning for Solar Energy: This section proposes changes to the zoning ordinance, subdivision regulations, building codes, environmental review and site plan review to reduce energy consumption. Other programs are also proposed. The section serves as the means to achieve the ends.

II. GOALS AND OBJECTIVES

A. GOALS

- Provide for the utilization of alternative renewable energy resources.
- Maximize building efficiency in the consumption of renewable and non-renewable energy.
- Minimize environmental, economical, social, and aesthetic impacts of alternative energy sources.
- Establish consistency between local energy policies and regional, state, and national energy policies.

B. OBJECTIVES

- Establish development/design standards to assure solar access for collectors from vegetation and from physical structures.
- Require the maximization of passive solar energy sources to be integrated in individual project design.
- Establish development/design standards to assure solar access for collectors.
- Encourage the use of active solar collectors for domestic hot water and pool heating.
- Examine current land use regulation (e.g., zoning ordinance and subdivision regulations) and development/design standards to assure the maximum utilization of solar sources.

III. DEFINITIONS

These definitions are presented to give a more complete picture of the factors related to energy. The definitions presented below are not an exhaustive list of appropriate terms; rather, they represent the terms most often used.

Solar Access: The availability of sunlight to solar collectors and energy systems.

Solar Energy System: Any active/passive solar collector or other solar energy device or any structural design feature whose primary purpose is to provide for the collection, storage, and distribution of solar energy for space heating or cooling or for water heating.

Active Solar System: Solar systems using external power to operate pumps or blowers to transfer energy from a collector to storage and then on to the end use.

Passive Solar System: Solar systems that operate without external sources of power. Usually collector/structure/distribution are attached to the building (e.g., south facing windows) in order to effectively use natural heat transport mechanisms.

Convection: The transfer of energy through air flow.

Conduction: Transfer of heat flow from molecule to molecule.

Solar Azimuth: The position of the sun in the sky from east to west; measured from true south with a negative value to the east and a positive value to the west.

Solar Altitude: The sun's height above the horizon can range from zero degrees (the horizon) to 90 degrees (directly overhead).

Solar Skyscape: The portion of the sky that a collector must "see" to perform effectively. The altitude of the sun on December 21st

(when it is lowest in the sky) and June 21st (when it is highest) determines the upper and lower boundaries of the skyscape.

Congeneration: Denotes any form of the simultaneous production of electrical or mechanical energy and useful thermal energy.

Solar Radiation: Transfer of heat from a hot surface to a cooler surface; can be reflected, absorbed, emitted, or transmitted when it strikes a surface.

Solar Rights Act: An act adopted by the State in 1978 that (a) prohibits communities from enacting "an ordinance which has the effect of prohibiting or of unreasonably restricting the use of solar energy systems" (Government Code Section 65850.5), (b) requires "the design of a subdivision...shall provide, to the extent feasible, for future passive or natural heating or cooling opportunities in the subdivision" (Government Code Section 66473.1), and (c) as a condition of approval of a tentative map, communities could require "the dedication of easements for the purpose of assuring that each parcel or unit...shall have the right to receive sunlight across adjacent parcels or units...for any solar energy systems." (Government Code Section 66475.3)

Solar Shade Control Act: An act adopted by the State in 1978 that protects solar collectors from trees and other vegetation or flora blocking the sun. The act is located in the Public Resources Code.

IV. BACKGROUND INFORMATION

A. INTRODUCTION

This section provides two sets of data that are important for the development of energy programs and policies. The first set of information concerns the current and projected consumption level of various energy sources such as electricity and natural gas. Also, facilities to meet future energy demand will be discussed. The second set of data provides information about climatic and topographic characteristics of Palm Desert. This information is essential if solar energy systems are to be utilized to a greater extent.

B. ELECTRICAL CONSUMPTION

Southern California Edison (SCE) is the primary company providing electrical power to Palm Desert's planning area residents.² A small portion of the planning area is served by Imperial Irrigation District. Over 90% of electrical power is produced from oil-and gas-fired generating units, according to SCE's 1979 annual report.

According to SCE, the average Coachella Valley resident consumed approximately twice the amount of electrical power than the average SCE residential customer in 1979.

Present facilities are expected to adequately meet anticipated meter

²Southern California Edison provides electrical power to over eight million people over a 50,000 square mile area of central and southern California.

growth in the Coachella Valley.³ This depends on the availability of oil and if the San Onofre 2 and 3 nuclear power plants go on line as scheduled. Locally, SCE has one substation adjacent to Silver Spur Ranch in operation, and a second substation, which is being expanded, located south of Highway 111 and east of Shadow Hills Road. A third substation is planned for the mid-1980's in the Cahuilla Hills, south of the current City limits. A scattering of substations exist or are planned for the area adjacent to the planning area.

C. GAS

Gas meter growth, as population, increased dramatically in the last few years.⁴ According to Frank Hurd, of the Southern California Gas Company, there should be no difficulties to supply gas during the next fifteen years since Palm Desert is geographically situated relatively close to large gas transmission lines. However, due to deregulation of gas prices in the United States gas will be more expensive in the future.

D. OTHER SOURCES

Gas and oil are not the only available sources of energy. Wind, solar, geothermal, cogeneration, and coal are other potential sources.

³ Over 6,000 meters were added to the Coachella Valley to the system in 1979; an additional 3,500 meters are expected in each of the next two years.

⁴ In 1976, there were 5,650 gas meters in Palm Desert; this increased to 8,050 by 1979.

Potential wind and geothermal generated sites are depicted in the California Desert Conservation Area Plan.⁵ However, the potential sites do not have practical application for the planning area. The utilization of solar energy on an individual basis, according to utility companies and government sources, is gaining in popularity. The same sources indicate that solar generating plants, to serve the overall needs of consumers within a large area, are not economically feasible at this time.

E. CLIMATE CHARACTERISTICS

The local climate plays a major role in the utilization of solar energy systems. The Coachella Valley has an arid desert climate. The Valley's climate ranges from mild days and cold evenings in the winter to intensely hot days and warm evenings in the summer.⁶ Less than five inches of rain per year is normal.

The sun's position in the sky is an important consideration if passive/active solar energy systems are to be utilized efficiently. The sun's position is defined by two angles: altitude (the sun's height above the horizon) and azimuth (the sun's arc of travel from east to west). The sun is at its lowest altitude and shortest

⁵ California Desert Conservation Area Plan, Draft; Bureau of Land Management, U.S. Department of Interior; February, 1980, p.100

⁶ The areas within the Planning Area experience temperatures similar to those at Palm Springs--annual average maximum is 88°F and annual average minimum is 56°F. In the months of April, May, and October, the average high is 91°F and the average low is 60°F. Between May and October, the days are intensely hot with average highs of 104°F (occasionally reaching 120°F) with average lows of 74°F.

traveling arc on December 21st and at its highest altitude and longest traveling arc on June 21st.⁷ The altitude and azimuth for the two days in question establish the boundaries of solar skyscape, or the area of the sky solar energy systems must "see" year round to be effective.

F. TOPOGRAPHY

Topography has a major role in the use of solar energy. The variable of concern here is the slope of the land. Although most of the planning area is relatively flat, northern and eastern slopes are found in Palm Desert.

Generally, northern slopes are the least ideal for solar energy use. Shadow lengths are extremely long, making site planning difficult for solar energy system's access to sunlight. The steepness of the slope accentuates the conditions created by slope direction although it is believed that northern slopes of the urbanized area of Palm Desert are not steep enough to preclude the usage of solar energy systems.

East slopes get more sunlight in summer and less in winter. The sun rises far to the north in summer, striking east slopes almost perpendicularly. This can cause overheating in the summer if the structure has large window areas on the east wall. Overheating is

⁷ The sun is at an altitude of about 34 degrees at noon on December 21st and over 80 degrees at noon on June 21st. The sun traverses an arc of 106 degrees from east to west on December 21st and an arc of 220 degrees on June 21st.

a particular problem in the late afternoon when the west side of the building is exposed to afternoon sun. East slopes are suitable for solar development if certain precautions are taken, such as shading or orientation of the structure on the lot.

G. BUILDINGS

Finally, the physical structure has a role in improving conservation in the consumption of energy. There are four basic parts of a structure which most directly affect summer heat gain: external color, window orientation, thermal mass, and thermal resistance. The heat gained through a window or through the building can easily dominate a structure's heat resistance if the window is unshaded or if the structure's external color attracts heat infiltration.

Energy used for daytime heating could be saved during the winter season by proper design and use of the sun's energy. Proper design, such as south glazing, can use the sun's energy to naturally heat a building.

In order to improve the energy efficiency of buildings, standards in the area of insulation, glazing, and other construction practices were adopted by the State for all new residential and commercial construction. These standards are implemented by the City Department of Building and Safety.

V. PLANNING FOR SOLAR ENERGY

A. INTRODUCTION

When compared to other residential users of SCE, Palm Desert residents are consuming high levels of energy, particularly in the hot summer months. With energy costs continuing to increase, the need to seek alternative energy sources is essential. Local energy consumption levels could be dramatically reduced. The City can improve the efficiency of energy use and reduce local consumption of non-renewable energy sources through the proper utilization of land use controls and the planning process. This section describes how zoning, subdivision regulations, site plan review, and other programs can be refined or developed to reduce energy consumption levels.

B. PRINCIPLES/GUIDELINES

Improving energy usage to reduce consumption could be a complex process since many variables need simultaneous consideration. To simplify the process underlying principles and guidelines are described below.

These principles and guidelines are not new; however, during the era of inexpensive energy, they have, for the most part, been set aside. They are presented here to guide the proposals of this element. They are as follows:

- The siting of streets, lots, and buildings could be evaluated to improve energy efficiency of a subdivision.
- Heat from the sun flows into a building by radiation, convection, and conduction. This heat source can be controlled to reduce the amount of energy required for space heating or cooling.

- Directing and modifying the wind pattern around and within a site can improve energy usage.
- The size (floor area) and shape (building envelope) of a building can improve energy usage.

C. ZONING

Zoning is one of the most important land use implementation tools available to local government. Development Standards indicated in the ordinance should assure that active/passive solar energy systems receive direct sunlight. Building height, setback requirements, and lot coverage are of particular concern here since they determine how buildings shade one another.

One of the implementation programs of this General Plan Update is the revision of the current zoning ordinance to achieve consistency between zoning districts and the General Plan. This revision process should also assure that barriers to the use of solar energy systems are removed. More specifically, the following shall be taken into consideration:

- (1) Make solar energy systems a permitted use within all zoning districts.
- (2) Active solar energy systems (i.e., solar collectors) should be exempted from height restrictions or allowed by special exception.
- (3) Detached active solar energy systems should be exempted from lot coverage restrictions.
- (4) Reduce height requirements to decrease shading.

- (5) Modify setback requirements to equalize access to sunlight.
- (6) Reduce minimum frontage requirements, if necessary, for lots on east/west streets so that lots are deeper and solar access is improved.
- (7) Decrease side yard requirements and increase front and rear yard requirements for lots on east/west streets. The result is narrower buildings from front to back and increased access to sunlight.
- (8) Consider the use of zero lot line zoning to increase the size of south lot area under the control of the landowner.

D. SUBDIVISION REGULATIONS/DESIGN REVIEW

Subdivision regulations are local ordinances that regulate the conversion of raw land into building lots for residential or other purposes. The regulations establish requirements for streets, utilities, site design and also contain administrative procedure for plan review, the dedication of open space for use by the development's residents, and the payment of fees. The City has established site and design review processes to assure maximum application of these regulations.

The Solar Rights Act permits communities to require subdivision be designed to provide, to the extent feasible, for passive or natural heating/cooling opportunities. These opportunities include the design of lots to allow for the proper orientation of a structure to take advantage of prevailing breezes or available shade and to

allow structures to be aligned in an east/west direction for maximum southern exposure.

As with the zoning ordinance, one of the implementation programs of this General Plan Update is the revision of the current subdivision regulations and the refinement of the design/site plan review process to address the concerns expressed throughout this element. The following areas should be considered when regulations are revised.

- (1) Building Orientation: Buildings should be oriented so that large areas of the roofs and walls receive adequate solar radiation from the south. The purpose is to maximize solar insulation and to minimize the loss or gain of heat from the structure. Considering the local climate, buildings in Palm Desert should generally have an east/west orientation along their longest dimension. This orientation will allow for the optimal use of overhangs and trees for shading walls and windows while preventing large areas of the structure from being exposed to the afternoon sun.

Slight variations to this east/west orientation may occur depending on the particular type of housing. For example, duplexes should be oriented in an east/west direction with the common wall bisecting the structure north and south. Low rise apartment complexes should also be primarily oriented east/west. To the extent feasible, apartment developments should maximize the number of units with access to and/or protection from solar radiation.

- (2) **Street Design:** The road system of a development acts as the framework for lot and building layout. To assure optimal solar orientation for buildings streets should run in an east/west direction. Based on the climate of the Coachella Valley, the California Energy Commission's handbook to solar access, stated that a 30⁰ variation to the southwest would still assure adequate solar access. Some areas of the City will require north/south streets - for example, in the Palm Valley Stormwater Channel Area - to minimize grading or to preserve natural drainageways. On north/south streets the layout of the lots and buildings can be adjusted for orientation to the sun.

Also, good internal circulation and reduced length of collector and arterial streets can reduce the amount of miles traveled and time cars idle, thereby reducing gas consumption.

- (3) Lot Orientation and Lot Configuration: Usually, lot orientation is dependent on street orientation. Lot line is usually perpendicular to the street. A perpendicular lot line requirement will give optimal solar access for buildings on east/west streets.

However, perpendicular lot line requirement does not maximize solar access on intercardinal or north/south streets and would subject structures to summer overheating.

On intercardinal streets (e.g., a north east/southwest street) lot lines could be oriented north/south to assure that buildings

are oriented in east/west directions. There are three ways to maintain proper lot orientation on a north/south street: lot consolidation, access consolidation, and increase lot frontage.

Instead of requiring east/west streets the City could require a certain level of proper lot orientation. This would allow the developer to choose the street configuration and building orientation. This flexibility could allow for greater imagination and creativity in design. Communities opting for this approach - for example, Sacramento and San Diego - require at least 80% performance requirement.

- (4) Subdivision Exaction: Subdivision regulations for dedication of open space in new developments can be used to protect solar access, as is allowed under Solar Rights Act. Open space could be used to protect passive/active solar energy systems from being shaded by other buildings. The area could also be used to locate solar collectors serving several buildings or a recreation area.

E. SITE REVIEW

As alluded to above, site plan review can play an important role in assuring the usage of solar energy systems. The layout of streets, lot configuration, topography, open space, and other buildings are all critical to solar energy systems. Since solar access depends on the relationships among all these elements, it is necessary to work from the total scheme of the development rather than reviewing individual elements.

To facilitate site review, in light of this element, the City could require developers to submit a plan indicating how buildings and landscaping will shade one another. The City should review and, if necessary, expand current site review criteria to include energy issues.

F. LANDSCAPE CONTROL

Landscape can benefit or hinder solar access. Landscape serves as shade which filters summer heat. However, landscape can block collectors from receiving an adequate amount of direct sunlight between 9:00 a.m. and 3:00 p.m. The City should assure that such a situation for existing and potential solar collectors does not occur.

The Shade Control Act prohibits landscaping from blocking solar access to collectors or other active solar energy systems. Under the Act, the state legislature supports the planting of trees for shading, to moderate temperatures, and to provide economic and aesthetic benefits, but declares that trees or shrubs planted after the installation of a solar collector cannot cast a shadow covering more than 10% of the collector's surface between the hours of 10:00 a.m. and 2:00 p.m.

G. COVENANTS

Covenant is a contract between two or more persons which involve mutual promises of reciprocal benefits and burdens among consenting

landowners. A covenant is usually created by a developer and approved by the City at the time a subdivision or development is approved by the City. The solar Rights Act renders any private covenant unenforceable if the restrictions prohibits or unreasonably restricts the installation or use of a solar energy system. The City shall assure that covenants do not violate the Solar Rights Act.

ii. OTHER RESOURCES

There are other programs outside the realm of the planning process in which the City could become involved. These possible programs are summarized below.

- (1) Assist utility companies and civic organizations in the dissemination of information, regarding energy conservation, to point feasible for the City to participate.
- (2) Study the possibility of retrofitting existing units for improving energy consumption. Several communities have required existing homes, at the time of resale, to retrofit by insulating, weatherstripping, and other improvements to improve the energy efficiency of existing structures. Before developing such a program, the City should study the administrative and economic implications of such a program.
- (3) Study the administrative and economic implications of requiring active solar energy systems for space cooling, domestic hot water, and pool heating in future construction.

- (4) Undertake an extensive survey and study as to how the energy efficiency of City facilities could be improved. This study should include street lights and conditions within City facilities.

V-C

NOISE
ELEMENT

DRAFT
NOISE ELEMENT¹

I. INTRODUCTION

The major source of noise in an urban environment is from transportation systems. Unshielded railroad mainlines and freeways can adversely impact residential areas up to one half mile away. Motorcycles may disrupt a residential neighborhood at any hour. Traffic on major and even local streets produce noise to be unpleasant in and around many residential areas. The purpose of this Noise Element is to reduce and/or control noise to maintain Palm Desert's image as a quiet residential community.

A. INTENT AND FUNCTION

The intent of this element is to take noise into account in the planning process. Although the primary emphasis is on transportation noise, this element will consider noise from non-transportation sources, including construction and domestic noise sources.

The Noise Element has four major functions:

1. To serve as a guide in developing the land use element to determine noise compatible land uses.
2. To serve as a guide in determining general policy toward noise and noise sources in the community.

¹Government Code Section 65302(g) requires a Noise Element which "quantifies the community noise environment in terms of noise exposure contours for both near and long-term levels of growth and traffic activity." The Office of Noise Control has developed guidelines to complete this element.

3. To identify, mitigate, and regulate noise within the City of Palm Desert.
4. To fulfill the requirements of Section 65302(g) of the Government Code which states that a noise element is a required element of the General Plan.

B. APPROACH OF ELEMENT

A major shortcoming of this element is the lack of information concerning noise within the incorporated boundaries of Palm Desert. Wilsey and Ham developed noise contours for the 1975 Noise Element; they have not been updated. In order to identify areas with potential noise problems this element utilized the recently adopted Noise Elements of Rancho Mirage and Indio and the information on traffic noise levels described in the Environmental Impact Report for the proposed Regional Shopping Center. Using the conclusions reached by these studies potential noise problem areas, although conjectural in nature, were identified for Palm Desert.

C. DIVISION OF THE ELEMENT

The Noise Element is divided into six sections:

- Goals and Objectives
- Potential Effects of Noise
- Relationship to Other Elements
- Identification of Noise Sources and Noise Problem Areas
- Noise Compatible Land Use Planning
- Implementation Strategies

Goals and Objectives represent the ends to be achieved by plans and implementation strategies; these are the official policies of the City. The Potential Effects of Noise section describes the potential social, economical and/or physical

effects noise may have on an individual or the community. The third section outlines the relationship between the Noise Element and other elements of the General Plan; particularly, land use, housing, circulation and open space/conservation elements. Identification of Noise Sources and Noise Problem Areas provides necessary inventory information about present and, possibly future noise sources and noise problem areas. The Noise Compatible Land Use Planning section indicates land uses that are compatible at certain noise levels. The final section, Implementation Strategies, suggests the means to achieve the goals and objectives of the element.

II. GOALS AND OBJECTIVES

GOALS:

- Contribute to the preservation and development of a high level natural and community environment.
- Protect those existing regions of the Planning Area whose noise environment are deemed acceptable and also those locations throughout the community deemed "noise sensitive"
- Encourage the type of development that is compatible with the noise level in the area.

OBJECTIVES:

- Require sufficient information concerning the community and specific site noise environment so that noise may be effectively considered in the land use planning process.
- Maintain and enhance the existing quality of the noise environment in Palm Desert.
- Mitigate the impacts of any existing noise sources which could result in potential psychological and/or sociological changes.
- Lessen the adverse indirect effects of noise on the physical and social environment.
- Prohibit noise sensitive land uses, such as hospitals and health care facilities, in areas of high noise levels unless certain conditions are met by the developers.

III. POTENTIAL EFFECTS OF NOISE

Noise is a complex phenomenon, and its impact on human activities depends on many different aspects of a single noise event or a series of noise events over a period of time. The response of the ear to noise depends on the physical parameters of the sound involved. The intensity of the response is related to sound pressure and increases logarithmically with the degree of stimulus. A short discussion of the potential physiological, psychological and economical effects due to noise follows. Most of the information is summarized from Health Hazards of the Human Environment by the World Health Organization.

PHYSIOLOGICAL EFFECTS:

- Auditory Fatigue: manifested by a temporary threshold shift, measured at least two minutes after exposure has ceased. It increases with the intensity of the sound, in which case it may be associated with side effects such as whistling or buzzing in the ears.
- Masking Effect: refers to the decrease in the perceptibility or intelligibility of a sound when other noise is present.
- Startled Reaction: produced by a sudden high intensity pulse of sound; affects autonomic nervous system.
- Impairment of Hearing: although hearing acuity generally decreases with age there is no proof that this condition is of exclusively physiological origin since exposure to noise is becoming increasingly common.
- Cardiovascular System: noise may affect the rate of heart beat, but may either increase or decrease it, depending on the type of noise. Noise generally causes heart output to decrease, as well as an increase or fluctuation in arterial blood pressure and vasoconstriction of peripheral blood vessels.

- Respiratory Systems: changes in breathing amplitude have been reported indicating a state of alarm or a feeling of discomfort.

PSYCHOPHYSIOLOGICAL EFFECTS:

- Sleep Disturbance: noise not only affects depth of sleep but also the type of sleep. When the mean sound level is low, an individual will take longer to go to sleep.
- Psychomotor Task: depending on its intensity, duration, frequency, distribution, intermittance and significance, noise has been shown both to improve and to reduce work performance, and both to increase and to decrease reaction time. There are two factors involved - the type of work and the character of the noise.

SOCIAL EFFECTS:

- Annoyance/Irritation: in spite of the fact that some degree of adaptation to noisy environments does occur and that individual reaction varies widely, research has shown that social contacts are disturbed in such environments; for example, around industrial plants and near airports. The significance of the noise and the attitude of the individual to it undoubtedly play a part in the degree of annoyance/irritation experienced.

ECONOMIC EFFECTS:

- Costs: excessive noise adversely affects property values and levels of productivity. Noise is a waste product from the production of goods and services; its costs are passed on to those in the vicinity rather than being borne by the producer of the noise.

Table 1 illustrates human response to various noise sources at various noise levels.

TABLE 1
SOUND LEVELS AND HUMAN RESPONSE

Noise Source	dB(A) Noise Level	Response	Hearing Effects	Conversational Relationships
Carrier Jet Operation	150			
	140	Harmfully Loud		
	130	Pain Threshold		
Jet Takeoff (200 ft.)	120			
Auto Horn (3 ft.)		Maximum Vocal Effort		
Rock 'n Roll Band				
Riveting Machine	110			
Loud Power Mower		Physical Discomfort		
Jet Takeoff (2000 ft.)				
Garbage Truck	100	Very Annoying Hearing Damage (Steady 8-hour Exposure)		Shouting in Ear
Heavy Truck (50 ft.)				
Pneumatic Drill (50 ft.)	90			Shouting at 2 feet
Alarm Clock				
Freight Train (50 ft.)		Annoying		Very Loud Conversation at 2 feet
Vacuum Cleaner (10 ft.)	80			Loud Conversation at 2 feet
Freeway Traffic (50 ft.)	70	Telephone use Difficult		
Dishwashers				
Air Conditioning Unit (20 ft.)	60	Intrusive		Loud Conversation at 4 feet
Light Auto Traffic (100 ft.)	50	Quiet		Normal Conversation at 12 ft.
Living Room				
Bedroom	40			
Library				
Soft Whisper (15 ft.)	30	Very Quiet		
Broadcasting Studio				
	20			
	10	Just Audible		
	0	Threshold of Hearing		

SOURCE: William Bronson, "Ear Pollution," California Health (October, 1971), P. 29

REPRINTED FROM: Noise Element, Riverside County, 1975, P. 11

Geologic hazard zones have been established by the State Geologist as required by the Alquist-Priolo Act (SB 520) along the San Jacinto fault to the southwest and along the several branches of the San Andreas fault (Garnet Hill, Banning, and Mission Creek) to the northeast. No such zones have been established within the City limits of Palm Desert, and none are anticipated on the basis of existing information.

Information bearing on the reoccurrence of earthquakes on the San Jacinto and San Andreas faults has been developed in the Technical Seismic Report. This information is pertinent to Palm Desert in that it bears on the risk of earthquake shaking in the City. While the results of analysis using various types of data are somewhat inconsistent, the following are considered the most important to the risk of earthquake shaking at Palm Desert (Figure 2).

1. The San Jacinto fault is one of, if not the, most active faults in California. It has a well established pattern as the source of numerous moderate sized earthquakes in the range of magnitude 6 to 7 about once every 12 years at some point along the fault and about every 200 years at any given point. Recent activity has centered primarily on the southern segments of the fault, but activity should increase on the northern segments nearer Palm Desert in the near future.
2. While an earthquake of magnitude 6.5 is considered the most probable event on the San Jacinto fault, a larger event of about magnitude 7.5 should be considered as a possibility, particularly in the design of the more important or critical structures.

Circulation: The major source of urban noise is from transportation systems. Noise exposure will be a decisive factor in the location and design of new transportation facilities and the possible mitigation of noise from existing facilities.

Open Space/Conservation: Excessive noise can either positively or negatively affect open space/conservation areas. Positively, open space can be used as a "noise buffer" between incompatible uses in urban areas. This technique could reduce community noise levels and provide relief from sometimes monotonous urban landscape. On the negative side excessive noise can adversely affect the enjoyment of recreational pursuits in designated open space. In most cases, the enjoyment of quiet pursuits in open space areas depends upon low noise levels.

V. IDENTIFICATION OF NOISE SOURCES AND NOISE PROBLEM AREAS

In order to control and/or eliminate undersirable noise in Palm Desert it is necessary to identify noise sources. An understanding of the source of noise will allow decision-makers to determine and implement strategies to reduce their potential impacts upon the community. This section is an inventory of various noise sources that presently exist in Palm Desert. Current and potential noise problem areas are identified as well.

A. NOISE MEASURES

Different noise measurements have been developed over a period of time to measure different aspects of noise from varying noise sources. The noise measurements defined below are presently the most commonly used measures in identifying noise conflicts and establishing noise standards.

The City should remain alert to developments in this field because the science of noise impact is changing rapidly, particularly with regard to over-all measurements of noise exposure.

- Decibels (dB): The simplest measurement of noise, it is logarithmically related to the amount of sound energy in the sound signal. An increase of 10 times in sound energy increases the noise levels in decibels by 10 units, and doubling the sound energy increases the noise level in decibels by about three units.
- Decibels A-Scale dB(A): The basic measurement in decibels modified to better relate to the sensitivity of the human ear. Higher frequency sound signals are accentuated in this measurement. The A-weighting filter de-emphasizes the very low and very high frequency components of the

sound and gives good correlation with subjective relation to noise. It is the basic measure used in California noise standards.

- Community Noise Equivalent Level (CNEL): The average equivalent A-weighted sound level during a 24-hour day, obtained after addition of five decibels to sound levels in the evening from 7 p.m. to 10 p.m. and after addition of 10 decibels to sound levels in the night between 10 p.m. and 7 a.m.
- Day-Night Average Level (Ldn): The average equivalent A-weighted sound level during a 24 hour day, obtained after addition of 10 decibels to sound levels in the night before 7 a.m. and after 10 p.m.
- Noise Exposure Contours: Lines drawn about a noise source indicating constant energy levels of noise exposure. CNEL community exposure to noise.

B. NOISE SOURCES

The following is a brief discussion of the various sources of noise that presently exist in the City.

Transportation is the major source of urban noise. For this reason the Guidelines adopted by the Office of Noise Control emphasizes the mitigation of this noise source as top priority. Noise created by a transportation system has a significant impact on the urban environment. Unshielded freeways can adversely impact residential areas up to one half mile away. Traffic on major and local streets can produce enough noise to be unpleasant in and around many neighborhoods. The combined impact of these noise sources - even in a quiet urban area - makes the normal "background" noise level - the noise one cannot get away from, that one hears in the background as a whish,

a hum, or a dull roar - many times louder than that in a rural area.

Highway traffic noise levels were calculated by Ultra-systems for various major streets in Palm Desert in conjunction with the Environmental Impact Report on the proposed Regional Shopping Center. Community Noise Equivalent Levels (CNEL) contours were calculated for Highway 111, Monterey Avenue and Avenue 44, using Highway Traffic Noise Prediction techniques. Existing highway traffic noise levels of 60 and 65 dBA for these areas are shown in Table 2*.

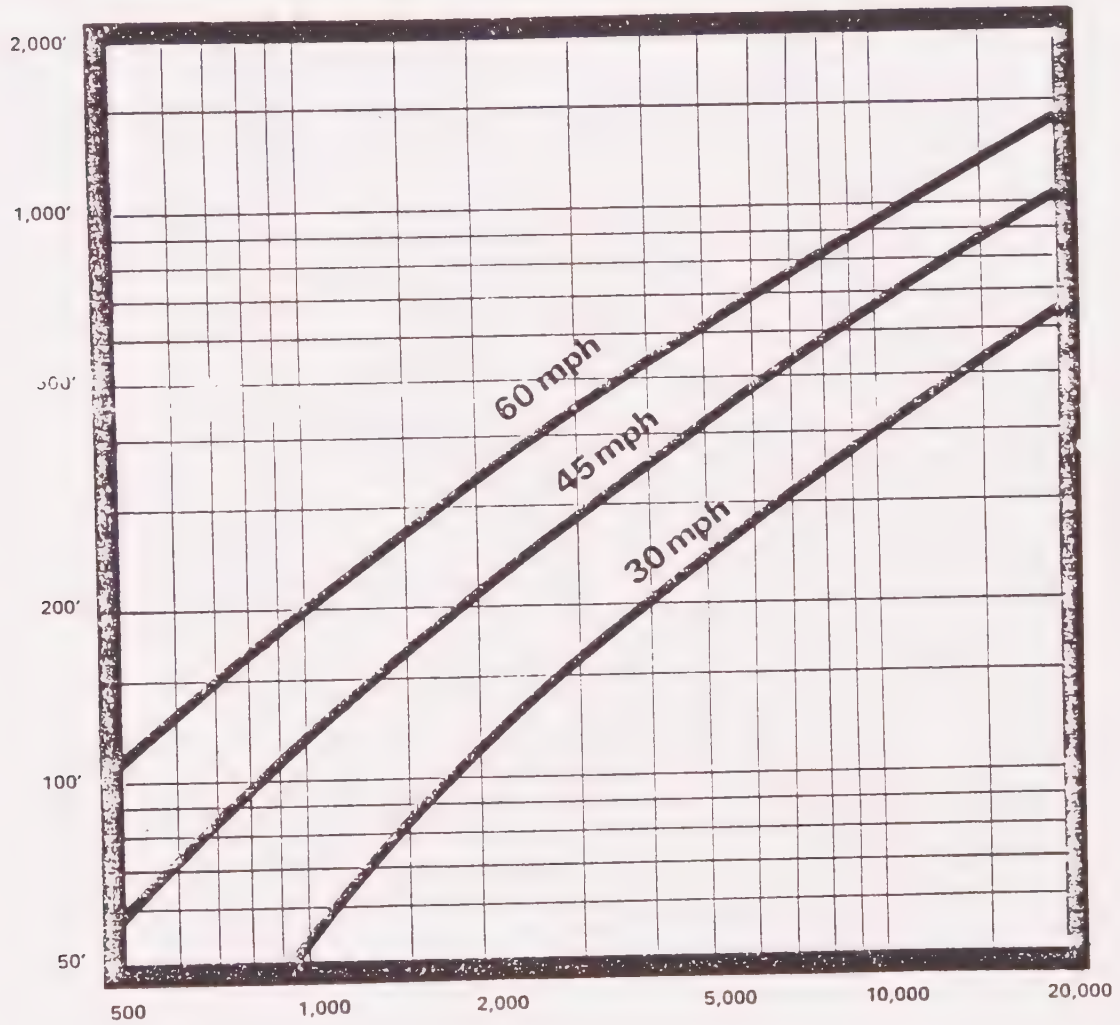
TABLE 2
EXISTING HIGHWAY TRAFFIC NOISE LEVELS (CNEL)

ROADWAY	AVERAGE DAILY TRAFFIC	Distance to Noise Contours Expressed in Feet From Center Lines of Roadway	
		60 dBA	65 dBA
Highway 111	28,900	441	205
Monterey Ave.	12,200	112	52
Avenue 44	6,100	57	26

Highway 111, along with the area surrounding Interstate 10, were identified in the 1974 General Plan as noise areas. Figure 1 illustrates the effect of changing traffic speed and volume on freeways and arterials on noise impacts.

* Ultrasystems, Initial Study On Palm Desert Towncenter, P. 56, 1979

WIDTH OF
'NORMALLY UNACCEPTABLE'
NOISE ZONE FROM
STREET CENTERLINE



PEAK HOUR TRAFFIC
VEHICLES PER HOUR

FIGURE 1
TRAFFIC SPEED/VOLUME RELATED
TO NOISE IMPACT

Source: Bolt Beranek and Newman Inc.

The major method to effectively reduce noise from road sources is through the use of physical barriers. Figure 2 illustrates alternative roadway and structural treatments to assist in achieving an acceptable interior and exterior noise level. Future noise impact areas, created by increased traffic volumes, will require mitigating measures. The opportunity exists, however, to route future traffic in a manner that could reduce possible noise impact.

California has the prime responsibility for setting noise emission standards for all motor vehicles subject to state regulation. Figure 3 shows the maximum noise limits of new motor vehicles.

Railroad: Railroad operation is also a major source of urban noise. Southern Pacific has a line that passes through the northern end of the City's Sphere of Influence. Although little development has occurred in the sphere at this time, it is expected that, in the near future, the Sphere will encounter urban pressures and encroachment. Noise impacts from Southern Pacific line must be mitigated at the time development occurs. Table 3 shows the effect of noise from 10 or more night time railroad operations, which applies directly to the operation of the Southern Pacific line.

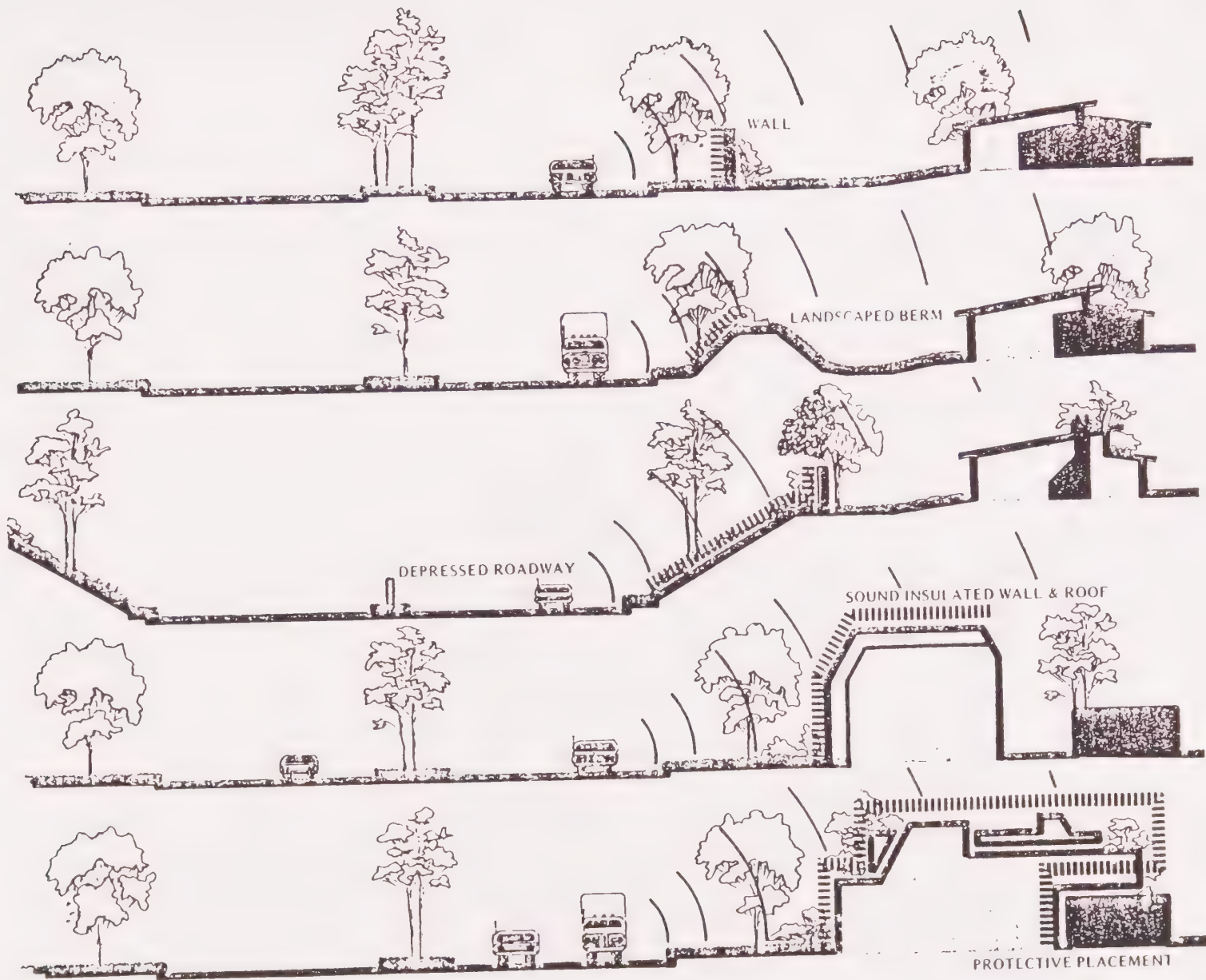


FIGURE 2
NOISE ABATEMENT STRATEGIES

FIGURE 3

NOISE LIMITS FOR NEW MOTOR VEHICLES

STATE OF CALIFORNIA

S27160. (a) No person shall sell or offer for sale a new motor vehicle which produces a maximum noise exceeding the following noise limit at a distance of 50 feet from the centerline of travel under test procedures established by the department:

(1) Any motorcycle manufactured before 1970	92 dB(a)
(2) Any motorcycle, other than a motor-driven cycle, manufactured after 1969, and before 1972	88 dB(A)
(3) Any motorcycle, other than a motor-driven cycle, manufactured after 1973, and before 1975	86 dB(A)
(4) Any motorcycle, other than a motor-driven cycle, manufactured after 1974, and before 1978	80 dB(A)
(5) Any motorcycle, other than a motor-driven cycle, manufactured after 1977, and before 1988	75 dB(A)
(6) Any motorcycle, other than a motor-driven cycle, manufactured after 1987	70 dB(A)
(7) Any snowmobile manufactured on or after January 1, 1973, and before January 1, 1975	82 dB(A)
(8) Any motor vehicle with a gross vehicle weight rating of 6,000 pounds or more manufactured after 1967, and before 1973	88 dB(A)
(9) Any motor vehicle with a gross vehicle weight rating of 6,000 pounds or more manufactured after 1972, and before 1975	86 dB(A)
(10) Any motor vehicle with a gross vehicle weight rating of 6,000 pounds or more manufactured after 1974, and before 1978	83 dB(A)
(11) Any motor vehicle with a gross vehicle weight rating of 6,000 pounds or more manufactured after 1977, and before 1988	80 dB(A)
(12) Any motor vehicle with a gross vehicle weight rating of 6,000 pounds or more manufactured after 1987	70 dB(A)
(13) Any other motor vehicle manufactured after 1967, and before 1973	86 dB(A)
(14) Any other motor vehicle manufactured after 1972, and before 1975	84 dB(A)
(15) Any other motor vehicle manufactured after 1974, and before 1978	80 dB(A)
(16) Any other motor vehicle manufactured after 1977, and before 1988	75 dB(A)
(17) Any other motor vehicle manufactured after 1987	70 dB(A)

SOURCE: Section 27160, Motor Vehicle Code

Reprinted from Noise Element, City of Palm Springs, P. 12

TABLE 3
RAILROAD NOISE IMPACTS

Distance From Site To Right-Of-Way		Acceptability Category
<u>Line-of-Sight Exposure</u>	<u>Shielded Exposure</u>	
More than 3000 ft.	More than 500 ft.	Clearly Acceptable
Between 601 and 3000 ft.	Between 101 and 500 ft.	Normally Acceptable
Between 101 and 600 ft.	Between 51 and 100 ft.	Normally Unacceptable
Less than 100 ft.	Less than 50 ft.	Clearly Unacceptable

Source: Noise Assessment Guidelines, HUD, 1971.

Construction: Residential areas could experience an increase in noise due to construction. Grading will be the most noticeable noise source. Residents near the construction site could be annoyed by the increase in ambient noise levels resulting from heavy grading equipment. Increases in noise levels--which could be in the range of 80 to 95 dBA--occur in the daytime hours only since construction normally does not occur during evenings or weekends.

Other Sources: There are a host of noise sources which temporarily disrupt the quietness of an area. These noises include: animals and fowls, engines in non-moving motor vehicles such as power tools, stereos and musical instruments, sporting events and horns. At present such noises cannot effectively be controlled by decibels standards and

are best handled by disturbing-the-peace ordinances. The lack of objective criteria for such nuisances plus the cost of round-the-clock enforcement limit the available alternatives.






C. PRESENT AND POTENTIAL NOISE PROBLEM AREA

Figure 4 graphically describes the present and potential noise problem areas. The noise problem area surrounding Interstate 10, the Southern Pacific line, and State Highway 111 were identified in the 1974 General Plan.

Potential noise problem areas are dependent upon the type of future development and increased traffic volume. El Paseo, Avenue 44, Monterey Avenue, Highway 74, Haystack Road, Hovley Lane, 36th Avenue, and Portola Avenue are major arterial streets with potential noise problems. Each of these streets has an important role in moving people and goods around the community. The extent of the problem will depend upon the type of development and mitigated measures undertaken to alleviate the problem. Existing developments along portions of these streets have undertaken both physical (walls) and non-physical (property setback) measures to reduce noise impact. However, areas such as Avenue 44, Portola Avenue - north of 111 - and Monterey Avenue are not country club or enclosed condominium developments and vehicle noise can permeate the area. El Paseo is a special area because with increased shopping

CURRENT AND POTENTIAL NOISE PROBLEM AREAS

Legend

-  CITY LIMIT
-  PD ADOPTED SPHERE
-  EXIST STREET
-  PROPOSED STREET
-  RAILROAD

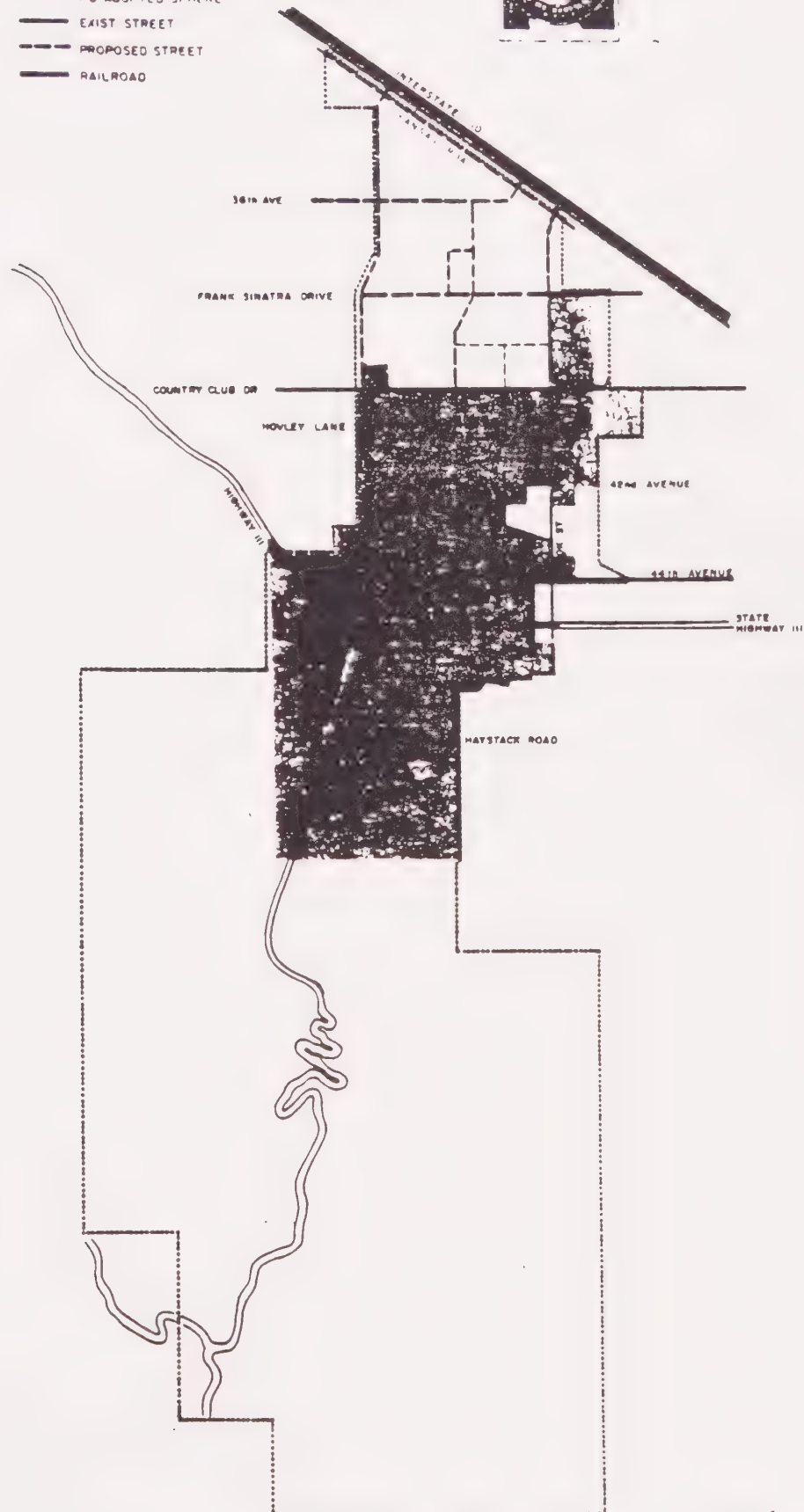


FIGURE 4

opportunities pedestrian and vehicular traffic will increase. It should be noted that a thorough study of noise in these areas has not been completed.

As stated in the Riverside County Noise Element, the noise problem consists of three components: the source of noise, the path noise follows, and the receiver of noise. The intent of the strategies is to control the source of the noise. However, in the case of noise generated by various transportation modes, the influence of local government is limited. The City can, however, influence the location of land use developments and, by doing so, encourage compatible land uses. The path of noise can be controlled by various means, such as diversion, reflection, absorption and dissipation. The least desirable approach is to treat noise at the site of the receiver.²

² Noise Element, Riverside County, P. 14, 1975

VI. NOISE COMPATIBLE LAND USE PLANNING

As stated in the Guidelines recently adopted by the Office of Noise Control, a major objective of the noise element is to insure noise compatible land use planning. Government Code Section 65302(g) places the responsibility of determining how the noise element will be integrated with the land use element upon local government.

The intent of such planning is to: (a) maintain those areas deemed acceptable in terms of noise exposure; and (b) where application of mitigating measures can only accomplish so much, leaving some sections of the area with excessive noise exposure, then zoning requirements need to reflect uses of that land which are noise compatible and restrict other less compatible uses.³

Such a noise planning policy needs to be rather flexible and dynamic to reflect not only technological advances in noise control but also economic constraints governing application of noise control technology and anticipated regional growth and demands of the community.

The Department of Housing and Urban Development established standards for noise in various land use categories. These standards established four zones: (1) Normally Acceptable, (2) Normally Unacceptable, and (4) Clearly Unacceptable.

Figure 6 defines the zones in terms of the noise environment and

Office of Noise Control, Guidelines in Preparing Noise Element, P.14, 1976

FIGURE 6

LAND USE COMPATIBILITY FOR COMMUNITY NOISE ENVIRONMENTS

LAND USE CATEGORY	COMMUNITY NOISE EXPOSURE L _{dn} OR CNEL, dB					
	55	60	65	70	75	80
RESIDENTIAL - LOW DENSITY SINGLE FAMILY, DUPLEX, MOBILE HOMES						
RESIDENTIAL - MULTI. FAMILY						
TRANSIENT LODGING - MOTELS, HOTELS						
SCHOOLS, LIBRARIES, CHURCHES, HOSPITALS, NURSING HOMES						
AUDITORIUMS, CONCERT HALLS, AMPHITHEATRES						
SPORTS ARENA, OUTDOOR SPECTATOR SPORTS						
PLAYGROUNDS, NEIGHBORHOOD PARKS						
GOLF COURSES, RIDING STABLES, WATER RECREATION, CEMETERIES						
OFFICE BUILDINGS, BUSINESS COMMERCIAL AND PROFESSIONAL						
INDUSTRIAL, MANUFACTURING UTILITIES, AGRICULTURE						

INTERPRETATION



NORMALLY ACCEPTABLE

Specified land use is satisfactory, based upon the assumption that any buildings involved are of normal conventional construction, without any special noise insulation requirements.



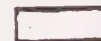
CONDITIONALLY ACCEPTABLE

New construction or development should be undertaken only after a detailed analysis of the noise reduction requirements is made and needed noise insulation features included in the design. Conventional construction, but with closed windows and fresh air supply systems or air conditioning will normally suffice.



NORMALLY UNACCEPTABLE

New construction or development should generally be discouraged. If new construction or development does proceed, a detailed analysis of the noise reduction requirements must be made and needed noise insulation features included in the design.



CLEARLY UNACCEPTABLE

New construction or development should generally not be undertaken.

CONSIDERATIONS IN DETERMINATION OF NOISE-COMPATIBLE LAND USE

A. NORMALIZED NOISE EXPOSURE INFORMATION DESIRED

Where sufficient data exists, evaluate land use suitability with respect to a "normalized" value of CNEL or L_{dn}. Normalized values are obtained by adding or subtracting the constants described in Table 1 to the measured or calculated value of CNEL or L_{dn}.

B. NOISE SOURCE CHARACTERISTICS

The land use-noise compatibility recommendations should be viewed in relation to the specific source of the noise. For example, aircraft and railroad noise is normally made up of higher single noise events than auto traffic but occurs less frequently. Therefore, different sources yielding the same composite noise exposure do not necessarily create the same noise environment. The State Aeronautics Act uses 65 dB CNEL as the criterion which airports must eventually meet to protect existing residential communities from unacceptable exposure to aircraft noise. In order to facilitate the purposes of the Act, one of which is to encourage land uses compatible with the 65 dB CNEL criterion wherever possible, and in order to facilitate the ability of airports to comply with the Act, residential uses located in Com-

munity Noise Exposure Areas greater than 65 dB should be discouraged and considered located within normally unacceptable areas.

C. SUITABLE INTERIOR ENVIRONMENTS

One objective of locating residential units relative to a known noise source is to maintain a suitable interior noise environment at no greater than 45 dB CNEL of L_{dn}. This requirement, coupled with the measured or calculated noise reduction performance of the type of structure under consideration, should govern the minimum acceptable distance to a noise source.

D. ACCEPTABLE OUTDOOR ENVIRONMENTS

Another consideration, which in some communities is an overriding factor, is the desire for an acceptable outdoor noise environment. When this is the case, more restrictive standards for land use compatibility, typically below the maximum considered "normally acceptable" for that land use category, may be appropriate.

its impact on various uses by relating common sounds to the noise standards.

In final analysis, however, each community must decide the level of noise exposure its residents are willing to tolerate within a limited range of values below the known levels of health impairment. Table 4 illustrates the range of desired average noise levels by land use category as adopted by the cities of Palm Springs, Indio and Rancho Mirage and Riverside County. Palm Desert should consider adopting similar acceptable noise levels.

TABLE 4
DESIRED AVERAGE NOISE LEVELS
BY LAND USE CATEGORY

<u>Land Use Category</u>	<u>Outdoor Land Noise Levels</u>	
	<u>Day (7am-10pm)</u>	<u>Night (10pm-7am)</u>
Rural Residential (Very Low and Low Density Residential)	50-60 dB(A)	50-60 dB(A)
Urban Residential (Medium and High Density Residential)	60-65 dB(A)	50-60 dB(A)
Commercial	70-90 dB(A)	55-65 dB(A)
Industrial	70-90 dB(A)	55-70 dB(A)

VII. IMPLEMENTATION STRATEGIES

Various Federal and State agencies have responded to the noise problem by establishing noise standards for certain activities. An example is California's noise emission standards for newly build vehicles. However, Federal and State actions are not enough. There must be a commitment and a willingness on the part of local officials to take action if there are to be viable solutions to the various aspects of the noise problems. The purpose of this section is to present policies and strategies which the city could adopt to control the noise levels in the community.

A. Assumptions

The Implementation Strategies are based on the following assumptions:

1. The concept that quietness is a desirable environmental characteristic.
2. It is within the public's health, safety and general welfare to control noise.
3. The Implementation Strategies must be accomplished through coordinated effort by the public, private enterprise, and all levels of government.
4. Controlling the source of noise is the most desirable approach.

B. Governmental Regulation

There are a wide variety of governmental regulations available to control noise in Palm Desert. Many of the techniques described here are already available to control noise

in Palm Desert. Many of the techniques described here are already available to control noise in Palm Desert. In some cases, noise will have to be included.

1. Zoning: Zoning could be used to control land use type and density around noise sources. Land use patterns can be delineated in a manner reflecting compatibility with existing and potential noise levels as discussed in previous sections. Noise-sensitive land uses such as residential, schools, libraries, churches, and hospitals should be controlled in areas of high noise levels, while noise-tolerant land uses such as industry, and commerce should be encouraged in those areas.

In order to be consistent with the General Plan, as required by State law, the Zoning Ordinance will be comprehensively revised. The City should consider establishing performance standards within a zone to abate noise.

2. Subdivision Regulations: These regulations are used to insure that large development projects are in compliance with the General Plan and zoning. Setback regulations can be used to reduce noise impact. As a receiver moves away from the noise source, the noise decreases. Requiring setbacks from a transportation facility may or may not be effective, depending on the distance of the setback.

3. Building Codes: Noise reducing insulation and other techniques can be used to minimize indoor exposure to noise. As previously stated, State law now requires special noise insulation of new multi-family dwellings constructed within the 60dB(CNEL or Ldn) noise exposure contours. If necessary, the City shall require builders to mitigate noise impacts by methods such as insulation not only for multi-family units but also single family units.
4. Environmental Impact Report: The City should require, through the EIR review process, all developers of residential property in "Normally Unacceptable" noise zones defined by HUD standards to present alternatives for dealing with noise impact. Such alternatives may include wall and window acoustic treatment, additional setbacks, shielding of open space areas, etc., including estimates of additional costs if noise abatement alternatives are not selected.
5. Site Plan Review: The planning process provides an opportunity to critically inspect and review every development plan that is proposed. The process should include an evaluation of the project's compatibility with the noise environment. The development proposal can be approved with conditions to resolve any difficulties due to noise levels. Techniques available include buffer strips, noise barriers, and other construction techniques.

D. DOMESTIC NOISE SOURCES

The City shall encourage manufacturers and distributors locating in Palm Desert to mitigate noise problems in their operations. Also, the City shall inform local residents how to control noises from local sources such as animals, stereos, etc. The City shall consider a disturbing-the-peace ordinance to regulate such noises.

E. NOISE ORDINANCE

The City shall develop a comprehensive noise ordinance which reflects the land use/noise relationship shown in Figure 6 and Table 4 and which specifies appropriate restrictions and mitigation features for development in noise area.

Until the City has an adopted noise ordinance the following is provided to comply with state and county standards to attenuate noise impacts on the interior of a residence to 45 CNEL. There are three mitigation options as follows:

1. Modify buildings through construction techniques.

Standard construction will provide noise reductions of 20 decibels with closed windows and 10 decibels with open windows. Thus, buildings with an exterior noise level of 65 CNEL or less will achieve 46 CNEL on the interior with closed windows. If exterior noise levels are between 65 and 70 CNEL increased glazing added to standard windows would reduce interior noise levels to

45 CNEL. For exterior noise levels above 75 CNEL additional construction techniques would be needed to achieve 45 CNEL interior noise levels.

2. Erect barriers to reduce exterior yard areas to 65 CNEL noise levels. If noise levels from outside sources would increase noise levels in yards around residences above 65 CNEL, barriers such as walls, earth berms, and berm and wall in combination with landscaping can be used to bring noise levels in yards down to 65 CNEL. The height of such barriers would range from 6 to 12 feet, but typically are used at a maximum of six feet except adjacent to freeways. Once noise levels in yards are reduced to 65 CNEL, building construction techniques as discussed above can be used to reduce interior noise levels to 45 CNEL.
3. Setback buildings behind 65 CNEL contour line.

Obviously combinations of all three mitigation options can be employed depending upon specific conditions.

Control of vehicular traffic is also an option which can be used to reduce noise at the source. Truck traffic can be limited to specific routes and/or to specific hours of travel on certain route segments. Vehicular speed limits can be controlled (lowered) on certain segments and/or during certain segments (for example, at night) in order to reduce ambient noise levels at the most sensitive times

and locations. Road gradients can also affect noise, the more gradual and gentle the gradient the less the noise impact from vehicles.

Mitigation of construction-related noises can be accomplished through the following measures:

1. Restrict hours of operation of noise equipment to be between 7 a.m. and 6 p.m., Monday through Saturday adjacent to occupied residential areas.
2. Stationary machines should be placed to direct noise away from sensitive receptors.
3. Construction vehicles should be equipped with adequate mufflers.

F. NON-LOCAL ACTION

The City shall discourage any regional, state or federal actions which would increase the noise levels in the City and take a strong stand on actions which increase the noise levels beyond acceptable limits. The City shall also aid in the enforcement of federal and state standards for noise-producing equipment including cars, motorcycles, trucks, etc.

G. NOISE STUDY

The City shall, in the next budget year, allocate adequate funds to hire a consultant to complete a thorough study of noise throughout Palm Desert. Based on the conclusions of

such a study the City shall establish acceptable noise levels for various land uses and make the necessary revisions to the implementation programs of the Element, the zoning ordinance, building codes and subdivision regulations, to reflect the acceptable noise levels.

V-D

SEISMIC SAFETY

SEISMIC SAFETY ELEMENT¹

I. INTRODUCTION

A major challenge facing governments of all levels is reducing the potential loss of life, injuries, damage to property, and economic and social dislocation resulting from earthquakes and other geologic hazards. This Seismic Safety Element is a vehicle for identifying hazards that must be considered in planning the location, type, and density of development.

The Seismic Safety Element has several functions. Basically, it functions as a general policy statement that:

- recognizes seismic hazards and their possible effect on the community;
- identifies general goals for reducing seismic risk;
- specifies the level or nature of acceptable risk to life and property;
- specifies seismic safety objectives for land uses;
- specifies objectives for reducing seismic hazards as related to existing and new structures.

The element contributes information on the comparative safety of using lands for various purposes, types of structures, and occupancies. It provides primary policy input to the land use, housing, open space, circulation and safety elements.

¹Government Code Section 65302(F) requires a Seismic Safety Element consisting of "An identification and appraisal of seismic hazards such as susceptibility to surface ruptures from faulting, or to the effects of seismically induced waves such as tsunamics and seiches.

The Seismic Safety Element will have positive effects upon the capacity for the community to do sound planning to mitigate hazards and promote safety. Applied collecting on a regional basis, the Valley's cities and the County will be in a better position to protect future residents from seismic hazard.

The element consists of three sections:

- Goals and Objectives
- Background Information
- Implementation Policies

The Goals and Objectives section represents City policies regarding what ends are to be achieved by the element. The Background Information section provides necessary inventory information and describes problems and opportunities related to realizing the goals and objectives of this element. Finally, implementation policies are the means in which to achieve the goals and objectives.

This element is a summary of the information contained in the Technical Seismic Safety Element developed by ENVICOM Corporation for the 1975 General Plan; a copy of this document is on file in the Department of Environmental Services. As a summary, this document is necessarily a simplification of the Technical Seismic Safety Element. Conclusions should not be formulated without reviewing the technical document in detail.

II. GOALS AND OBJECTIVES

A. GOALS:

- Minimize the danger to life and property from potential environmental hazards.
- Prevent serious injury and loss of life from seismic activity.
- Prevent serious structural damage to critical facilities and structures where large numbers of people are apt to congregate at one time.
- Ensure the continuity of vital services and functions.

B. OBJECTIVES:

- Reduce to a minimum the loss of life, disruption of goods and services as well as the destruction of property associated with an earthquake.
- Take potential hazards into account in the General Plan.

III. BACKGROUND

Responsibility for Seismic/Geologic Hazard Evaluation

The responsibility for the evaluation of seismic and geologic hazards lies with both the public and private sectors. The following are suggested as guidelines in determining the distribution of responsibility of the two sectors:

1. The owner or developer of a particular site should be responsible for, and should bear the cost of the evaluation of those hazards that can be evaluated on or in the near vicinity of the site.
2. Those hazards that cannot be adequately evaluated at the site should be considered for evaluation with public funds. The nature of the funding may vary depending on the extent of the impact of the hazard.
3. To facilitate the administration of public safety, it may be desirable to undertake, with public funds, a general evaluation of site-related hazards as they exist within an entire jurisdiction.

The application of these guidelines to geologic/seismic hazards depends on the type of hazard and the availability of information that can be used to evaluate the hazard. For example, faults can be located on a particular site by the engineering geologist necessary for evaluation of the activity of the fault are normally present only at certain critical locations, and evaluation of activity may require a publicly funded investigation. On the other hand, landslides can normally be evaluated as part of the site investigation funded by the owner or developer. Public agencies may wish to fund a general investigation of landslide hazards to facilitate the administration

of public safety, but the final evaluation must be a part of site evaluation because additional hazard may be introduced by proposed modification of the site.

The distribution of emphasis of this Seismic Safety Element is based on these concepts. Those aspects of a particular hazard that cannot be evaluated on a site-basis, or which can more efficiently be evaluated on a regional basis, are emphasized in this analysis. Those hazards that can be effectively evaluated as part of site investigations are treated in a general way with the intent that the results be used to facilitate the administration of public safety. It should be emphasized that such generalized evaluations should in no way be considered a substitute for a detailed site investigation which must consider not only existing conditions but also any hazards that may result from proposed modifications of the site.

A key step in hazard evaluation is public involvement, through their elected representatives, in the determination of acceptable levels of risk. All hazards involve risk. A technical evaluation may determine certain risk parameters, but only the public can determine the acceptable balance between the risk of a hazard and the cost of mitigation. Because of the extreme importance of this step, primary emphasis is placed on the technical evaluation of available information relating to the risk of seismic hazards. The technical analysis can provide such information, but only the public sector can make the final determination of the acceptability of those risks.

The relationship between the concepts discussed above and the evaluation of

specific seismic/geologic hazards is shown in Figure 1. The primary responsibility for evaluation of each aspect of a hazard is shown by a "XX", and by a "XXX" if a determination of acceptable risk is involved. Those aspects for which either sector may commonly have a secondary responsibility are indicated by an "X". The intent is to show the distribution of responsibility for evaluation of a hazard; the overall regulatory responsibility of government is not included.

Geologic and Seismic Setting

The City of Palm Desert is located on recent (Holocene) alluvium derived primarily from Dead Indian Creek. The alluvium is composed of unconsolidated boulder and cobble gravel and sand within and near the mouths of the canyons, grading to sand, silt and clay in the lower parts of the Valley. These materials range in thickness from a feather edge near the mountains to 1000 feet or more in the Valley.

The mountains to the south and west of the City are underlain by hard, resistant granitic and metamorphic rocks that form moderately steep to steep ridges and canyons.

Major faults located within the City limits of Palm Desert include several within the granitic and metamorphic rocks in the western and southern part of the City, and the South Pass fault group in the northern part of the City. These faults were probably active during the early formation of the San Jacinto Mountains, but there is no evidence to indicate that they are active today.

FIGURE 1

DISTRIBUTION OF RESPONSIBILITY FOR
EVALUATION OF SEISMIC/GEOLOGIC HAZARDS

Hazard	Responsible Sector	
	Public	Private
1. Fault rupture: a. Evaluation of fault b. Location at site	XXX	XX
2. Earthquake shaking: a. Sources of shaking b. General levels of shaking c. Effects on site	XXX XX	X XX
3. Tsunamic and seiche: a. Risk of occurrence b. Effects on site	XXX	XX
4. Dam failure: a. Risk of occurrence b. Effects on site	XXX	XX
5. Landslide: a. Regional evaluation b. Effects on site	XX	X XX
6. Liquefaction, settlement, & subsidence: a. Regional evaluation b. Effects on site	XX ⁽¹⁾	XX

- X Secondary responsibility
 XX Primary responsibility
 XXX Primary responsibility including determination of acceptable risk

(1) Evaluation requires determination of expected shaking.

Geologic hazard zones have been established by the State Geologist as required by the Alquist-Priolo Act (SB 520) along the San Jacinto fault to the southwest and along the several branches of the San Andreas fault (Garnet Hill, Banning, and Mission Creek) to the northeast. No such zones have been established within the City limits of Palm Desert, and none are anticipated on the basis of existing information.

Information bearing on the reoccurrence of earthquakes on the San Jacinto and San Andreas faults has been developed in the Technical Seismic Report. This information is pertinent to Palm Desert in that it bears on the risk of earthquake shaking in the City. While the results of analysis using various types of data are somewhat inconsistent, the following are considered the most important to the risk of earthquake shaking at Palm Desert (Figure 2).

1. The San Jacinto fault is one of, if not the, most active faults in California. It has a well established pattern as the source of numerous moderate sized earthquakes in the range of magnitude 6 to 7 about once every 12 years at some point along the fault and about every 200 years at any given point. Recent activity has centered primarily on the southern segments of the fault, but activity should increase on the northern segments nearer Palm Desert in the near future.
2. While an earthquake of magnitude 6.5 is considered the most probable event on the San Jacinto fault, a larger event of about magnitude 7.5 should be considered as a possibility, particularly in the design of the more important or critical structures.

1009

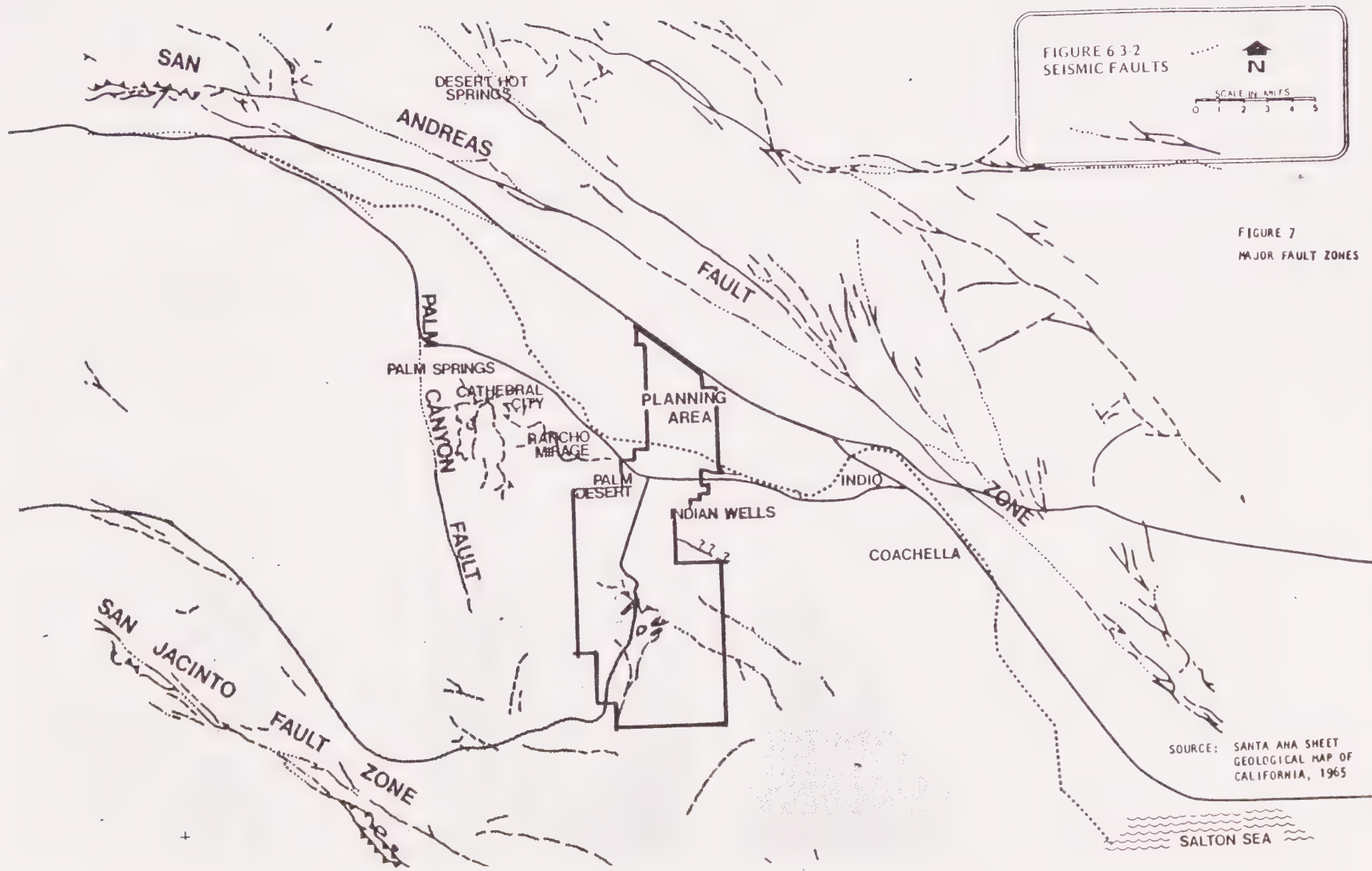


FIGURE 6 3-2
SEISMIC FAULTS

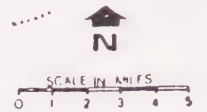


FIGURE 7
MAJOR FAULT ZONES

SOURCE: SANTA ANA SHEET
GEOLOGICAL MAP OF
CALIFORNIA, 1965

SALTON SEA

3. The San Andreas in the Palm Desert area exhibits a relatively low level of seismicity. The recurrence interval for a magnitude 6.5 earthquake resulting from slip along any particular part of the fault is approximately 500 years.
4. Crustal strain (regional less San Jacinto movement) and recent and late Pleistocene movement, however, suggest a much higher level of activity. If these indicated rates of movement are converted to a theoretical recurrence interval for a magnitude 6.5 earthquake, it is only 25 years or less or one-tenth or less that from seismicity.
5. Data on movement of the San Andreas fault system along its entire length indicates rates of movement in the range of 5 to 8 cm/yr are likely. Only about one-third of this can be accounted for along the San Jacinto fault, leaving the San Andreas itself about twice as active as the San Jacinto.
6. The San Andreas fault in the Palm Desert area is generally considered to be part of an "active area" rather than one of the "locked segments" of the fault. A "great" earthquake (magnitude 7.8 or more) is, therefore, considered unlikely. A "major" earthquake, however, with a magnitude of approximately 7.5, is considered likely.
7. Recurrence data is somewhat conflicting, but "best estimates" for expected earthquakes are as follows:

Fault and Earthquake MagnitudeRecurrence Interval

San Jacinto fault

Magnitude 6.5

200 years

Magnitude 7.5

500 years

San Andreas fault

. Magnitude 7.5

50-150 years

Seismic Hazard

The choice of a particular earthquake, for which protection is to be provided, involves a determination of acceptable risk. In general, the risk of occurrence decreases as the magnitude of the potential earthquake increases. Since the cost of providing protection increases as the magnitude of the "design earthquake" is increased, there is a point at which the cost of providing protection becomes prohibitive when considered in the light of the cost involved.

The main sources of earthquake shaking at Palm Desert are the San Andreas fault on the northeast and the San Jacinto fault on the southwest. Information bearing on the risk of occurrence of earthquakes of various magnitudes on these faults has been developed in the Technical Seismic Report. The following are recommended for consideration as the earthquakes that should be taken into account for various types of facilities is as follows:

<u>Use</u>	<u>Magnitude of Earthquake</u>	
	<u>San Andreas Fault</u>	<u>San Jacinto Fault</u>
Critical Facilities	7.5	7.5
Normal Commercial Facilities	7.0	6.5
Normal Residential Facilities	6.5	6.5

The engineering characteristics of these earthquakes are developed in the Technical Seismic Report. The above data represents the preliminary recommendations of acceptable risk for seismic hazards and the public, through its elected representatives, must ultimately decide on the level of risk they deem acceptable for each type of hazard. Further, the public must also decide upon the types of land use that would fall under the facility classifications "normal" and "critical."

The following taxonomy of Critical Facilities (Figure 3 is intended to use as a guide in evaluating the importance of each facility relative to overall public safety.

Seismic Response Zones (Figure 4)

The derivation of the seismic zones have been documented in the Technical Report. They are expressive of the level of ground motion that can reasonably be anticipated from earthquakes on the principal fault systems affecting Palm Desert. The characteristics of each seismic zone are represented by response spectra which translate ground motion into displacement (inches); velocity (inches per second); and acceleration (inches per second expressed as a percent of the acceleration of gravity). These three factors which are derived from mathematical analysis are essentially the descriptions of each seismic zone.

In discussing the major groupings of the seismic zones the following general statements can be made:

1. The seismic zones have been derived from two basic sets of criteria,

FIGURE 3
TAXONOMY OF CRITICAL FACILITIES

Facility	Potential Effect on Loss of Life	Required for Community Functioning
Dams	X	
Electrical Substation		X
Schools	X	
Fire Stations		X
Railroad Lines		X
City Buildings	X	
Hospitals	X	X
Sewage Treatment Plants		X
Water Works		X
Radio Stations		X
Television Stations		X
Microwave Stations		X
Sheriff/Police Offices		X
Major Highways/Bridges	X	X
Airport	X	X

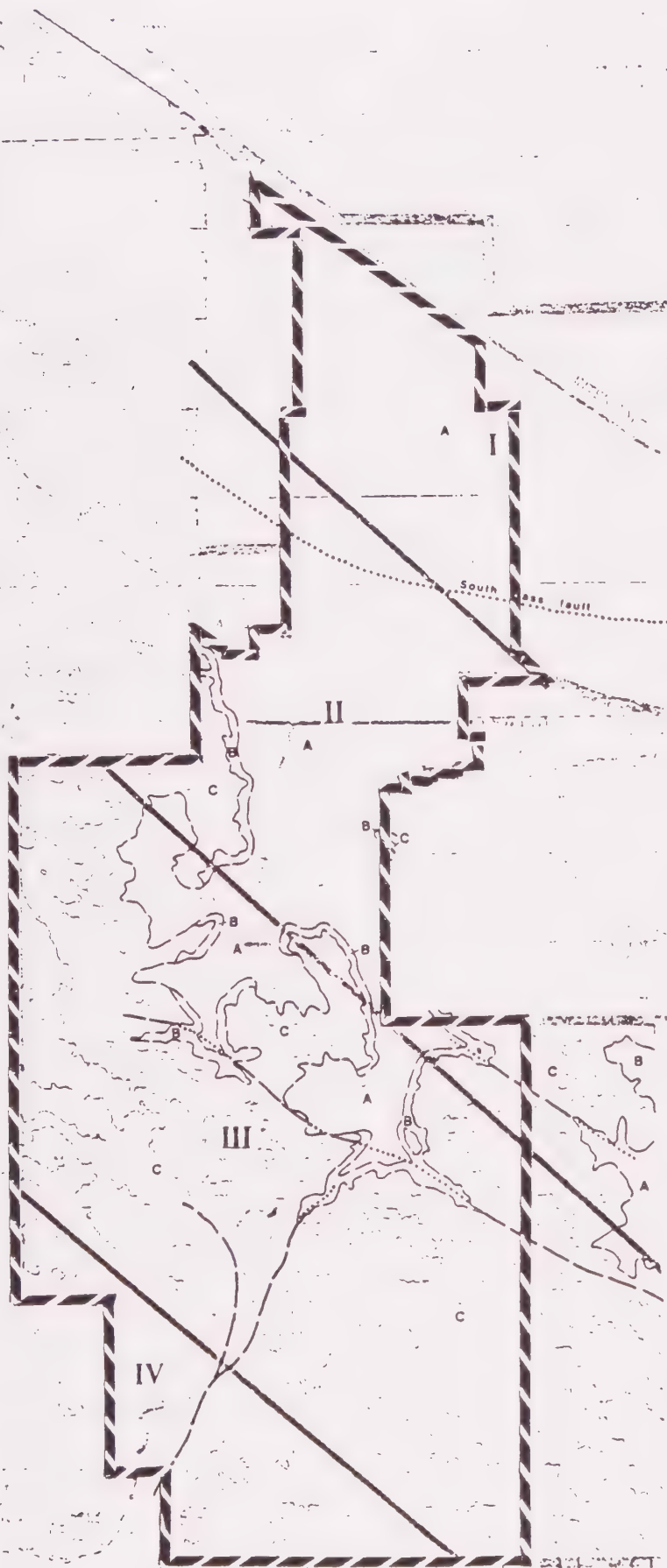


FIGURE 6.3-4
SEISMIC RESPONSE ZONES

- Zone boundary and zone designation based on distance.
- Zone boundary and zone designation based on rock or soil type

- Fault (approximate)
- Fault (buried)

P.D. STUDY AREA

SOURCE: ENVICOM Corporation

NORTH 0 1 2 Miles 3

WILSEY & HAM

6.3.B.5.b

(a) distance from the source of an earthquake; and (b) geographic differentiation of soil and bedrock conditions.

2. The seismic zone analysis is based upon the San Andreas and San Jacinto fault systems as the principal sources of strong ground shaking in Palm Desert.

3. Soil and bedrock conditions within the seismic zones have been differentiated into three significant zones as follows:

Zone A - Alluvium, more than 200'

Zone B - Alluvium, 200' or less

Zone C - Bedrock (Firm to hard)

The general sensitivity of the seismic response zone is rated on a 1-10 scale in Figure 5.

FIGURE 6.3-5

SEISMIC RESPONSE ZONES
- RELATIVE SENSITIVITY -

Scale ^{1/}	Critical Facilities	Commercial Facilities	Residential Facilities
1	1B	1B	1B
2	11B	11B	1A
3	111B	1A	11B
4	1A	111B	111B
5	11A	11A	11A
6	111A	111A	111A
7	1C	1C	1C
8	11C	11C	11C
9	1VC	111C	1VC
10	111C	1VC	111C

^{1/} Scale runs from "most sensitive" 1 to "least sensitive" 10.

II D14

1. Settlement

Soils in the Palm Desert area consist of the alluvium underlying the City and thinner residual and locally derived soils in the mountainous areas. The alluvial soils are granular to coarsely granular. The upper few feet is often loose and poorly compacted, and may require some removal and recompaction for heavy structures. Differential settlement, however, should not be a problem provided normal soils engineering precautions are taken.

The soils in the mountainous area of the City are primarily residual (derived in place) soils with some locally derived alluvium. They are relatively thin, and should not be a problem with respect to differential settlement.

Regional settlement may occur as the result of groundwater withdrawal and the lowering of the water table. Such settlement is not normally a hazard to structures because it does not result in differential movement that would cause damage. Aqueducts or other structures that require a precise maintenance of grade may be affected, but most are not.

2. Liquefaction

Liquefaction involves a sudden loss in strength of a saturated, cohesionless soil (predominantly sand) which is caused by shock or strain, such as an earthquake, and results in temporary transformation of the soil to a fluid mass. If the liquefying layer is near the surface the effects are much like that of quicksand on any structure located on it. If the

layer is in the subsurface, it may provide a sliding surface for the material above it. Liquefaction typically occurs in areas where the groundwater is less than 30 feet from the surface, and where the soils are composed predominantly of poorly consolidated fine sand.

Review of water-well records of the Coachella Valley County Water District and maps of the California Department of Water Resources (1964) indicates that groundwater levels in the study area and have been at or below 100 feet for several tens of years. Considering the demand for water in the area, it is unlikely that water levels will rise to a depth that liquefaction would become a potential hazard at Palm Desert.

3. Landslides

Landslides should be considered a basic geologic hazard rather than one having an unusual association with earthquakes. The shaking of an earthquake only provides the triggering force to initiate downslope movement of a previously unstable earthmass. The prime factor is the unstable condition itself. Movement could just as easily be triggered by heavy rains, or by grading on a construction project.

The bedrock underlying slopes steep enough to be involved in landsliding at Palm Desert is limited to relatively hard igneous and metamorphic types that are not generally prone to landsliding. The softer sedimentary rocks of the coastal sections of Southern California, in which landslides are common, are not present at Palm Desert. This dominance of relatively strong rock and the low annual rainfall make the Palm Desert area one relatively free of landslides.

Of the several types of landslides normally encountered in Southern California, only rockfalls are present to any significant degree. They are common on the steeper slopes of the rocky terrain to the west and south of the City.

A more detailed assessment of the landslide hazard at any particular site requires detailed knowledge of the site and the nature of any proposed modifications of the terrain. For this reason, geologic and soils engineering investigations should be required for developments in hilly or mountainous terrains. It is only through detailed evaluation of existing conditions and proposed modifications that a high level of safety can be assured.

Tsunamis and Seiches

Tsunamis are seismic sea waves, and do not present a hazard at Palm Desert.

Seiches are standing waves produced in a body of water by the passage of seismic waves from an earthquake. Seiches are not a hazard because of the absence of lakes or reservoirs of significant size within the City.

Problems

- While ground breakage is not expected to occur within the study area, the area would be subjected to ground motion and other effects of earthquakes.
- In the event of a large earthquake bridge structures, particularly

in Seismic Zones I and II, may be damaged. In this event, access to and from the City could be severely impaired.

Opportunities

- On the basis of existing information none of the faults within the city of Palm Desert can be considered "active" or "potentially active" as presently defined by the State Mining and Geology Board and the State Geologist.
- No Special Studies zones as required by the Alquist-Priolo Geologic Hazards Act have been delineated within the City by the State Geologist, and, based on the information developed in this study, none are expected.
- Settlement and liquefaction as a result of seismic shaking are considered significant hazards in Palm Desert, provided soils engineering investigations are conducted by competent professionals on sites considered for structures.
- Soft sedimentary rocks, prone to landsliding in many other parts of California, are not present at Palm Desert, and this hazard is limited primarily to the rockfall types of landslide in the mountainous terrain in the western and southern part of the City.
- Tsunamis and seiches are not a hazard at Palm Desert.
- Findings indicate that there should be no restrictions placed on the location or type of single-family housing within the Planning Area based on the response spectra in the Technical Report.

V. IMPLEMENTATION POLICIES

The City shall

- Require a general geologic investigation to be included in the environmental impact report for any proposed use in the planning area.
- Require a detailed geologic investigation if the general geologic investigation indicates the need for one. This should take place prior to the filing of subdivision maps.
- Require special earthquake resistant design features or use limitations as are appropriate to the specific case if a detailed geologic investigation confirms the existence of a potential seismic hazard.
- Modify the city of Palm Desert's building code using the seismic zones and attendant response spectra as a guideline. This will bring the building code into conformance with expected seismic conditions resulting from future earthquakes.
- Establish a program of building inspection to identify all structures in the city that do not meet modern earthquake standards for construction and conform to design criteria of the modified city building code.
- Make available the technical section of the seismic safety element to developers for review and use when proposing land development.
- Require detailed site studies to ascertain the potential seismic hazard

on facilities which are critical in an emergency. These facilities include but are not limited to:

1. Hospitals
 2. Police and fire stations
 3. Municipal government centers
 4. Transportation linkages
 5. Major public utilities (electrical, water facilities)
 6. Designated emergency centers
- Encourage individual citizens to establish "family emergency disaster plans".
 - Encourage state, federal and other governmental agencies to intensify research on seismic and other geologic hazards.
 - Establish a priority system of roads, services and other vital needs in the event of an earthquake disaster.
 - Review annually and comprehensively revise every five years, or whenever substantially new scientific evidence becomes available, the seismic safety element.

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